ORDER NO.DSD0405014C8

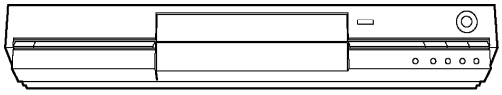
Service Manual

DVD Video Recorder

DMR-E85HEP

Colour

(S).....Silver Type



Notes: The part of DVD Drive (VXY1814) is listed separately.
Please refer ORDER No. RAM0402001C0

When replacing with Digital P.C.B. or HDD, "UNFORMAT" indication is displayed and HDD must be formatted.
After that, programme in the HDD will be lost.
In detail, please refer to each content in this service manual.

SPECIFICATIONS

Specifications

Power supply	AC220 240 V, 50 Hz	
Power consumption	38 W	
Recording system	DVD video recording format (Complied with DVD-RAM), DVD video format (DVD-R)	
Optical pick-up	System with 1 lens, 2 integration units (658 nm wavelength for DVDs, 795 nm wavelength for CDs)	
Recordable discs	• 12 cm 4.7 GB DVD-RAM discs • 12 cm 9.4 GB DVD-RAM discs • 8 cm 2.8 GB DVD-RAM discs • 12 cm 4.7 GB DVD-RAM discs (Ver. 2.1/3X-SPEED DVD-RAM Revision 1.0) • 8 cm 1.4 GB DVD-R discs (for General Ver. 2.0) • 12 cm 4.7 GB DVD-R discs (for General Ver. 2.0) • 12 cm 4.7 GB DVD-R discs (for General Ver 2.0/ 4X-SPEED DVD-R Revision 1.0)	
Recording time	• Maximum 8 hours (using 4.7 GB disc) XP: Approx. 1 hours SP: Approx. 2 hours LP: Approx. 4 hours EP: Approx. 6 hours or 8 hours • Maximum 142 hours (with built in 80 GB HDD) XP: Approx. 17 hours SP: Approx. 34 hours LP: Approx. 68 hours EP: Approx.106 hours or 142 hours	
Region number	Region No.2	
Discs played	• 12 cm 4.7 GB DVD-RAM discs • 12 cm 9.4 GB DVD-RAM discs • 8 cm 2.8 GB DVD-RAM discs • 12 cm 4.7 GB DVD-RAM discs (Ver. 2.1/3X-SPEED DVD-RAM Revision 1.0) • 8 cm 1.4 GB DVD-R discs (for General Ver. 2.0) • 12 cm 4.7 GB DVD-R discs (for General Ver. 2.0) • 12 cm 4.7 GB DVD-R discs (for General Ver 2.0/ 4X-SPEED DVD-R Revision 1.0) • DVD-VIDEO discs • DVD-Audio discs • CD-Audio discs (CD-DA) • Video CD discs • CD-R/ CD-RW discs (CD-DA, Video CD, MP3 formatted discs)	
Built-in HDD Capacity	80 GB	
Drive Unit	High Speed Drive (correspond to 4 times speed with DVD-R disc and 3 times speed with DVD-RAM disc)	
Video system		
TV system	SECAM(Only Input)/PAL system, 625 lines, 50 fields /NTSC system, 525 lines, 60 fields	
Recording system	MPEG2 (Hybrid VBR)	
Video Input	Video In: (SECAM/ PAL/NTSC)	AV1/AV2(21pin x 2), AV3/AV4(pin jack x 2) 1.0Vp-p ; 75Ω
	S-Video In: (SECAM/ PAL/NTSC)	AV2(21pin), AV3/AV4(S connector x 2) Y:1.0Vp-p ; 75Ω, C:0.3Vp-p ; 75Ω
	RGB In(PAL):	AV2(21pin) 0.7Vp-p ; 75Ω

Video Output	Video Out: (PAL/NTSC)	AV1/AV2(21pin x 2), LINE(pin jack x 1) 1.0Vp-p ; 75Ω
	S-Video Out: (PAL/NTSC)	AV1(21pin), S connector x 1 Y:1.0Vp-p ; 75Ω, C:0.3Vp-p ; 75Ω
	RGB Out: (PAL)	AV1(21pin), 0.7Vp-p ; 75Ω
	Component video out: (NTSC 480P/480I) (PAL 576P/576I)	Y: 1.0Vp-p ; 75Ω(pin jack) PB: 0.7Vp-p ; 75Ω(pin jack) PR: 0.7Vp-p ; 75Ω(pin jack)
Antenna reception system	OIRT(PAL-DK, SECAM-DKK1)	VHF: CH R1 - CH R12 UHF: CH 21 - CH 69 CATV: CH 44MHz - 470MHz
	CCIR(PAL-BGH, SECAM-BG)	VHF: CH E2-CH E12 UHF: CH E21 - CH E69 CATV: CH S01-S05, M1-M10, U1-U10, S21-S41
	South Africa (PAL-I)	VHF: CH 4 - CH 13 UHF: CH 21 - CH 68
RF Converter Output	Not provided	
Audio system		
Recording system	Dolby Digital 2ch, Linear PCM (XP mode, 2 ch)	
Analog Input	AV1/AV2(21pin x 2), AV3/AV4(pin jack x 2) Standard input: 0.5 Vrms Full scale: 2.0 Vrms at 1KHz Input impedance: More than 10KΩ	
Analog Output	AV1/AV2(21pin x 2), LINE(pin jack x 1) Standard output: 0.5 Vrms Full scale: 2.0 Vrms at 1KHz Output impedance: Less than 1.0KΩ	
Number of channels	Recording: 2 channels Playback: 2 channels	
Digital Output	Digital Audio Optical Output Connector (PCM,Dolby Digital,DTS,MPEG)	
Dimensions	Approx. 430 (W) x 79 (H) x 274 (D) mm [Approx. 16 15/16" (W) x 3 1/8" (H) x 10 13/16" (D)] (excluding protrusions)	
Mass	Approx. 4.4 kg (9.70 lbs)	
Operating temperature	5°C - 40°C (41 F - 104 F)	
Operating humidity range	10 %-80 % RH (no condensation)	
Clock unit	Quartz-controlled 12-hour digital display	
LASER Specification (Class I LASER Product)		
Wave length	795 nm, 658 nm	
Laser power	No hazardous radiation is emitted with the safety protection.	
Power consumption in standby mode	approx. 3.0 W	
Solder	This model use lead free solder (PbF).	

Notes : Mass and dimensions are approximate.
Specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. Safety precautions

1.1. General guidelines

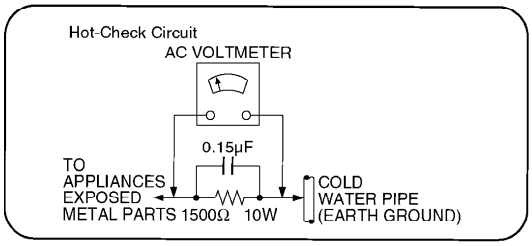
1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.

2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage current cold check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1MΩ and 5.2MΩ. / When the exposed metal does not have a return path to the chassis, the reading must be ∞.

Figure 1



1.1.2. Leakage current hot check / (See Figure 1 .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kΩ, 10 watts resistor, in parallel with a 0.15μF capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1 .
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.

6. **The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliampere. In case a measurement isoutside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.**

2. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatic Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistor-sandsemiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, whichshould be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or**

comparableconductive material).

7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. **Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficientto damage an ES device).**

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3. Precaution of Laser Diode

CAUTION:

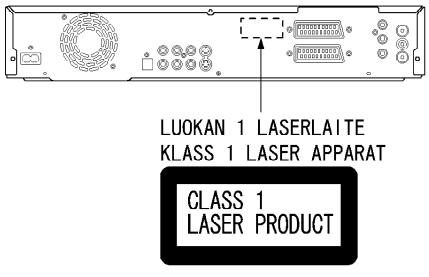
This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.
Wave length: 795 nm/658 nm
Maximum output radiation power from pickup: 100 μ W/VDE
Laser radiation from the pickup lens is safety level,but be sure the followings:

1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

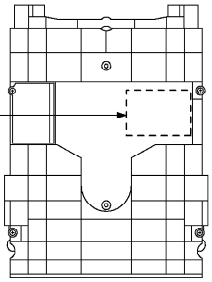
ACHTUNG:

Dieses Produkt enthält eine Laserdiode.
Im eingeschalteten Zustand wird unsichtbare Leserstrahlung von der Laserinheit adgestrahit.
Wellenlänge: 795 nm/658 nm
Maximale Strahlungsleistung der Lasereinheit: 100 μ W/VDE
Die Strahlungan der Lasereinheit ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinhit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlines blicken.
4. Nicht über längere Zeit in die Fokussierlines blicken.



DANGER - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. (FDA 21 CFR)
CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. (IEC60825-1)
ATTENTION - RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
ADVARSEL - SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! - AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING - SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
ADVARSEL - SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
注 意 - 打开时有可见及不可见激光辐射。避免激光束照射。
注 意 - ここを開くと可視及び不可視のレーザー光が出ます。ビームを直視肉たり、当れたりしないでください。
RQLS0233



CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

4. Handling the Lead-free Solder

4.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:
P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution:

- **Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control,please set it to 700 ± 20°F (370 ± 10°C).**
- **Pb free solder will tend to splash when heated too high (about 1100°F/600°C).**
- **When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.**

5. Each Buttons

6. Taking out the Disc from RAM-Drive Unit when the Disc cannot be ejected by OPEN/CLOSE button

6.1. Forcible Disc Eject

6.1.1. When the power can be turned off.

1. **Turn off the power and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.**

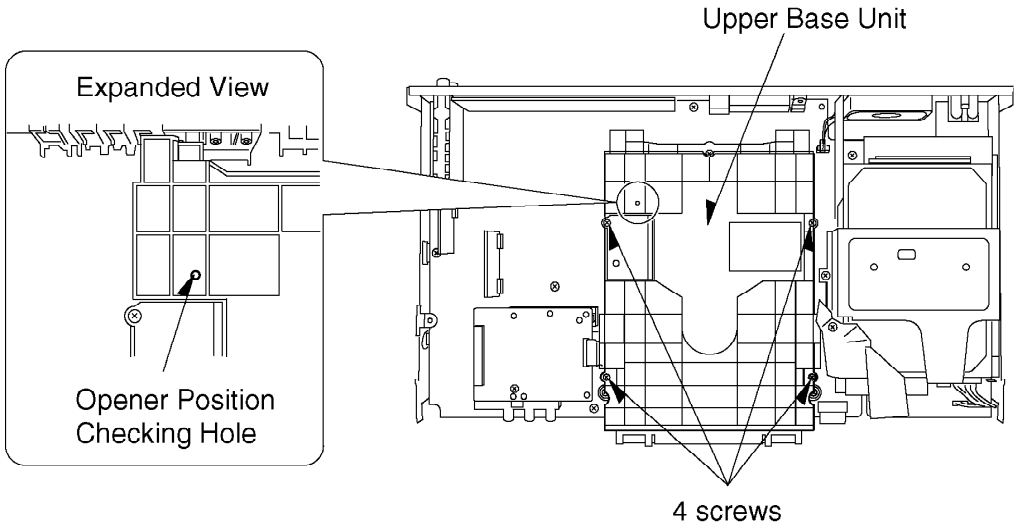
6.1.2. When the power can not be turned off.

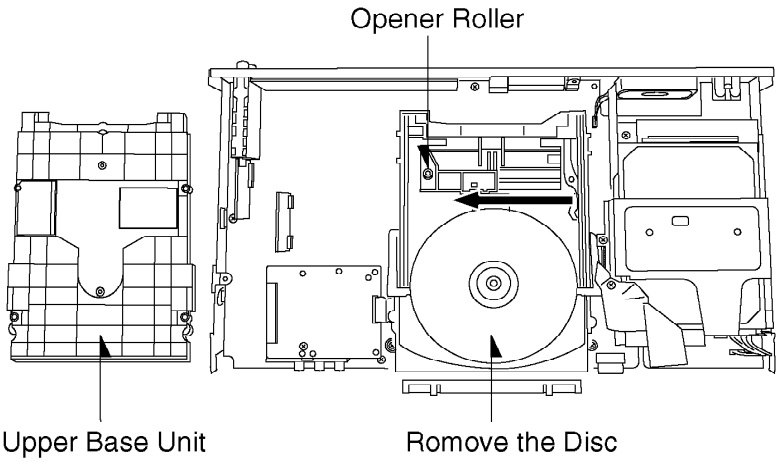
1. **Press [POWER] key on the front panel for over 10 seconds to turn off the power forcibly, and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.**

6.2. When the Forcible Disc Eject can not be done.

1. **Turn off the power and pull out AC cord.**
2. **Remove the Top Case.**
3. **Remove the Front Panel.**
4. **Remove 4 screws and Upper Base Unit from DVD-RAM Drive.**

5. **Take out the disc and put the Opener Roller on fully position for direction of Arrow.**
6. **Put the Upper Base Unit so that the Opener Roller is inserted into the groove.**
7. **Check center of Opener Roller is seen through the Opener position Checking Hole, and tighten 4 screws.**





7. Service Explorer

Confirm “RAM-Drive Last Error” in Service Mode

Execute Service Mode

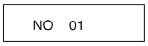
1. **Press [STOP], [TIME SLIP] and [OPEN/CLOSE] simultaneously for 5 seconds when P-off.**
   FL Display:

***After finishing display “(7). Factor of Drive Error occurring”, press [0] [2] ~[9] [9] keys of the Remote Controller so that 99 memories can be displayed as maximum.**

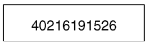
2. Press [4] [2] keys of remote controller.

Example of FL Display:

(1) Error Number is displayed for 5 seconds.

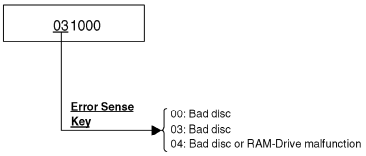


(2) Time when the error has occurred is displayed for 5 seconds.



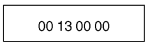
The error has occurred at 2004(year)/Feb.(month)/16(day)/19(hour):15(minute):26(second)

(3) Last Drive Error (1/2) is displayed for 5 seconds.



When above error codes are displayed, confirm operation with Panasonic RAM disc or Panasonic DVD-R disc.
***If the operation is OK, judge the error is due to media.**
***If the operation is NG and symptom as BLOCK NOISES and so on that are particular symptom of Digital appears, judge the error is due to RAM-Drive or Digital PCB.**

(4) Last Drive Error (2/2) is displayed for 5 seconds.



*This error code is unnecessary for service.

(5) Error occurring Disc type is displayed for 5 seconds.

(6) Disc Maker's ID is displayed for 5 seconds.

Example of Disc Maker's ID:

DVD-R Disc

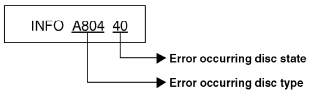
No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	Japan
2	PVC	Pioneer	Japan
3	MCC	Mitsubishi Chemical Corporation	Japan
4	TDK	TDK	Japan
5	MXL	Maxell	Japan
6	MCI	MITUI CHEMICALS	Japan
7	JVC	Victor JVC	Japan
8	TAIYOYUDEN	Taiyo yuden	Japan
	TYG		
9	GSC	Giga Storage	Taiwan
10	PRODISC	Prodisc	Taiwan
11	PRINCO	PRINCO	Taiwan
12	RITEK	RITEK	Taiwan
13	OPTDISC	OPTDISC	Taiwan
14	LEAD DATA	LEAD DATA	Taiwan
15	CMC	CMC	Taiwan
16	AUVISTAR	AUVISTAR	Taiwan
17	ACER	Acer	Taiwan
18	VIVASTAR	VIVASTAR	Switzerland
19	LGE	LG Electronics	Korea

DVD-RAM Disc

No.	FL Display (Disc Maker's ID)	Disc Maker	Country
1	MEI	Panasonic	
2	MATSUSHITA	Panasonic	Japan
3	MXL	Maxell	Japan
4	PRODISC	Prodisc	Taiwan
5	OPTDISC	OPTDISC	Taiwan
6	CMC	CMC	Taiwan

***Since an display is arbitrarily set up by the disk producer side, the above-mentioned display may be changed.**
Please make it reference as an example of a display.

(7) Factor of Drive Error occurring is left displayed



Error Occurring Disc Type

FL Display	Disc Type
00	DVD-ROM/Video
01	Audio-CD
02	2.6GB DVD-RAM
03	4.7GB DVD-RAM
04	DVD-R

Error Occurring Disc State

FL Displays (Hexadecimal)	Description			
	Disc distinction state	Cartridge disc state	Cartridge disc state	Disc size
00	OK	With cartridge	Has not been opened yet.	12 cm
10	OK	With cartridge	Has not been opened yet.	8 cm
20	OK	With cartridge	Has been opened.	12 cm
30	OK	With cartridge	Has been opened.	8 cm
40	OK	Bare	Has not been opened yet.	12 cm
50	OK	Bare	Has not been opened yet.	8 cm
60	OK	Bare	Has been opened.	12 cm
70	OK	Bare	Has been opened.	8 cm
80	NG	With cartridge	Has not been opened yet.	12 cm
90	NG	With cartridge	Has not been opened yet.	8 cm
A0	NG	With cartridge	Has been opened.	12 cm
B0	NG	With cartridge	Has been opened.	8 cm
C0	NG	Bare	Has not been opened yet.	12 cm
D0	NG	Bare	Has not been opened yet.	8 cm
E0	NG	Bare	Has been opened.	12 cm
F0	NG	Bare	Has been opened.	8 cm

8. Self-Diagnosis and Special Mode Setting

8.1. Self-Diagnosis Functions

Self-Diagnosis Function provides information for errors to service personnel by “Self-Diagnosis Display” when any error has occurred.
U14, H and F** are stored in memory and held.**
Display on FL will be cancelled when the power is turned off or AC input is turned off during self -diagnosis display is ON.

Error Code	Diagnosis contents	Description	Monitor Display	FL disp
U12	Remote control code error	Display appears when main unit and remote controller codes are not matched.	No display	REMOTE [“*” is remote c code of the ma Display for 5 s
U14	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 70°C. The power is turned off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speedfor the first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	No display	U14 “U14” is displa minutes.
U99	Hang-up	Displayed when communication error has occurred between Main microprocessor and Timer microprocessor.	No display	U99 Displayed is le [POWER] key i
H01	Inoperative fan motor	Display appears when inoperative fan motor is detected after powered on. The power is turned off when detecting.	No display	H01 Displayed is le
F00	No error information	Initial setting for error code in memory (Error code Initialization is possible with error code initialization and main unit initialization.)	No display	F00 Displayed is le
F01	Drive hardware error	Display appears when drive unit error is detected. The event is saved in memory.	No display	F01 Displayed is le
F12	Initialization error when main microprocessor is started up for program recording	Display appears when initialization error is detected after starting up main microprocessor for program recording. The event is saved in memory. The power is turned off when detecting.	No display	F12 Displayed is le

Error Code	Diagnosis contents	Description	Monitor Display	FL disp
UNSUPPORT	Unsupported disc error	*An unsupported format disc was played, although the drive starts normally. *The data format is not supported, although the media type is supported. *Exceptionally incase of the disc is dirty.	"This disc is incompatible."	UNSUPPO Display for 5 s
NO READ	Disc read error	*A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.	"Cannot read. Please check the disc."	NOREAD
HARD ERR	Drive error	The drive detected a hard error.	"DVD drive error."	Display for 5 s HARD ERF
SELF CHECK	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, thereis the possibility that defective Digital P.C.B. / RAM drive.	No display	SELF CHE
Full Program	32 programs are already set.	32 programs are already set.	No display	PROG FULL
HDD SLEEP	In order to extend HDD life, the HDD is in SLEEP (not activated) mode.	If there is no disc in the unit, the HDD will go into SLEEP mode after there has been no operation for 30 minutes or longer. *While in SLEEP mode play or recording may not begin rightaway because the HDD takes time to be re-activated.	"HDD SLEEP" is displayed for 3 seconds.	HDD S

8.2. Special Modes Setting

Item		FL display	Key opera
Mode name	Description		Front K
TEST Mode	*All the main unit's parameters (include tuner) are initialized.	TEST AV1	Press [SKIP (RE SLIP] and [OPEI keys simultaneo five seconds wh is off.
Service Mode	Setting every kind of modes for servicing. *Details are described in “8. 3. Service Mode ”.	SERVICE MODE	When the power press [STOP], [T and [OPEN/CLO simultaneously seconds.
Rating password	The audiovisual level setting password is initialized to “Level 8”.	INIT	Open the tray, a [SKIP (REV)] an (FWD)] simultan five seconds.
Forced disc eject	Removing a disc that cannot be ejected. The tray will open and unit will shift to P-off mode. *When Timer REC is ON or EXT-LINK is ON, execute " Forced disc eject " after releasing TimerREC or EXT-LINK. *This command is not effective during "Child lock" is ON.	The display before execution leaves. **********	When the power press [STOP] ar keys simultaneo five seconds.
Child lock/unlock	Set or release “Child Lock”.	X HOLD	Press [ENTER] a [RETURN] by re controller simul until [X-HOLD] i displayed.
NTSC/PAL system select	To switch PAL/ NTSC alternately.	The display before execution leaves. **********	When the power E mode), press and [OPEN/CLO simultaneously seconds.
Forced power-off	When the power button is not effective while power is ON, turn off the power forcibly.*When Timer REC is ON or EXT-LINK is ON, execute “Forced Power-off” after releasing Timer RECor EXT-LINK. Action: The tray will open, and the power will turn off.	Display in P-off mode.	Press [Power] k than 10 seconds

Item		FL display	Key opera
Mode name	Description		Front K
Aging	Perform sequence of modes as * Aging Description shown below continually.	Display following the then mode.	When the powe press [CH DOW SLIP] and [OPE CLOSE] simulta for over five sec less than 10 sec *The [REC MOD be set to EP or I *Whenthe unit h up because of p keys for over 10 once turn off th and re-execute t command. "When releasin mode, press [P key.
Demonstration lock/unlock	Ejection of the disc is prohibited. The lock setting is effective until unlocking the tray and not released by "Main unit initialization" of service mode.	*When lock the tray. LOCK "LOCK" is displayed for 3 seconds.	When the powe press [STOP] ar [POWER] keys simultaneously seconds.
		*When unlock the tray. UNLOCK "UNLOCK" is displayed for 3 seconds.	When the powe press [STOP] ar [POWER] keys simultaneously seconds.
		*When press OPEN/ CLOSE key while the tray being locked. LOCK Display "LOCK" for 3 seconds.	Press [OPEN/CL while the tray be locked.
ATP re-execution	Re-execute ATP.	Display at ATP executing. **********	When the powe E mode), press and [CH DOWN] simultaneously seconds.

Item		FL display	Key opera
Mode name	Description		Front K
Progressive initialization	The progressive setting is initialized to Interlace.	The display before execution leaves. **********	When the power E mode), press and [TIME SLIP] simultaneously seconds.

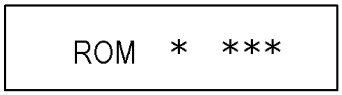
Aging Contents (Example):

Format→REC→Play→STOP→Play→Skip(R)→Cue
↑ ↓
Stop←Play←R-Slow←Slow←Pause←Play←Rev
*The unit repeats above sequence.

8.3. Service Modes

Service mode setting: While the power is off, press TIME SLIP, STOP and OPEN / CLOSE simultaneously for five seconds.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Release Items	Item of Service Mode executing is cancelled.	SERVICE MODE	Press [0] [0] or [service mode.
Error Code Display	Last Error Code of U14/H/F held by Timer is displayed on FL. *Details are described in “8. 1. Self-Diagnosis Functions”.	♣□□ *♣ shows U/H/F. □□ shows number.	Press [0] [1] in s mode

Item		FL display	Key opera
Mode name	Description		(Remote contr
ROM Version Display	Region code, MAIN firm version, TIMER firm version and DRIVE firmware versions are displayed on FL for five seconds per each version in order, but ROM version will be left displayed.	  * “ ”are version displays.	Press [0] [2] in s mode

<table>
<tr><th colspan="2">Item</th><th rowspan="2">FL display</th><th>Key opera</th></tr>
<tr><th>Mode name</th><th>Description</th><th>(Remote contr</th></tr>
<tr><td>Version Display of <u>Main Microprocessor</u></td><td colspan="3">Example of FL Display
0100SK
Version
OEM Code
0: Matsushita Electric
1: Hitachi
2: Samsung
3: DENON
Destination Code and Model Code
For Japan
SK: DMR-E55
SL: DMR-E85H
SR: DMR-E95H
SS: DMR-E300H
SU: DMR-E500H
SQ: DMR-E75V
SV: DMR-E150V
For North America/Can
/Latin America
DK: DMR-E55P/PC/PL/F
DP: DMR-E65P
DL: DMR-E85HP/HPC
DR: DMR-E95HP
DU: DMR-E500HP/HPC
DQ DMR-E75VP/VPC/VI
For Europe/Asia/
EK: DMR-E55EG/EB/EBL/EP/EE/GCS/GN/GK/GC, DMR-E53E
EP: DMR-E65EG/EB/EP/EE/GCS/GN/GK/GC
EL: DMR-E85HEG/HEB/HEP/HEE/HGCS/HGN
ER: DMR-E95HEG/HEB
EU: DMR-E500HEG/HEB/HGCS/HGN/HGK
EQ: DMR-E75VEG/VEB</td></tr>
<tr><td>Version Display of <u>Timer Microprocessor</u></td><td colspan="3">Example of FL Display
0010DA
Version: 0.01
Bottom 2 figures of Part Number of Timer Microprocessor: M30</td></tr>
<tr><td>White Picture Output</td><td>White picture is output as component Output from AV Decoder.
*White picture
(Saturation rate : 100%)
*It is enable to switch Interlace/ Progressive by “I/Pswitch: [1] [4]”</td><td>*Initial mode is “Interlace”.
WHIT I
Switch Interlace/ Progressive
WHIT P</td><td>Press [1] [1] in s mode.
Press [1] [4] in V Picture Output r *I/P are switche alternately.</td></tr>
</table>

Item		FL display	Key opera
Mode name	Description		(Remote contr
Magenta Picture Output	Magenta picture is output with Component Output from AV Decoder. *Magenta picture (Saturation rate: 100%) *It is enable to switch Interlace/ Progressive by "I/Pswitch: [1] [4]"	*Initial mode is "Interlace". MAGE I	Press [1] [2] in s mode.
		Switch Interlace/ Progressive MAGE P	Press [1] [4] in M Picture Output r *I/P are switche alternately.
RTSC Return in XP (A & V)	AV1 input signal is encoded (XP), decoded (XP) and output decoded signal to external without DISC recording and DISC playback.	Initial mode: EE2/ Interlace / XP/ Audio 48kHz EE2 I XP 48	Press [1] [3] in s mode.
		Switch Interlace/ Progressive EE2 P XP 48	Press [1] [4] in P Return XP mode *I/P are switche alternately.
		Audio 44.1 kHz/ 48 kHz Switch EE2 P XP 44	Press [2] [4] in P Return XP mode *48 kHz / 44.1 kH switched alterna
I/P Switch	Switch Interlace and Progressive in EE mode. *Initial setting is "Interlace". *This command is effective during executing "White Picture Output", "MagentaPicture Output" and "RTSC Return in XP (A & V)" modes.	Initial mode is Interlace SERVICE I Switch Interlace/ Progressive SERVICE P	Press [1] [4] in I mode. *I/P are switche alternately.
Audio Mute (XTMUTE)	Check whether mute is applied normally by the timer microprocessor.	TIMER MUTE	Press [2] [1] in s mode.
Audio Mute (XDMUTE)	Check whether mute is applied normally by the Digital P.C.B. (GLUE IC).	MAIN MUTE	Press [2] [2] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Audio Pattern Output	The audio pattern stored in the internal memory is output (Lch: 1kHz/-18dB) (Rch: 400Hz/-18dB) *Audio sound clock switching operation of DAC can beconfirmed by sub command [2] [4].	Initial mode (Audio 48kHz) AUDIO 48	Press [2] [3] in s mode.
		Audio 44.1kHz/48kHz switching AUDIO 44	Press [2] [4] in A Pattern Output r *48 kHz / 44.1 kH switched alterna
HDD READ inspection	Perform a complete read inspection of the HDD.	When the HDD is OK HDD RDOK If the HDD is defective HDD RDNG□○○ □ : Judge of Forward rate. *When normal (Forward rate is 35Mbps or more, and there is no HDD error): □ is Space. *When Abnormal (Forward rate is less than 35Mbps): □ is X. ○○ : Number of what have spent time for seeking over 100ms. *When normal: ○○ are spaces. *When Abnormal: Display Number of what have spent time for seeking over 100ms. However, if the number is more than 100, Display [XX]. We judge it is normal that the number is less than 4.	Press [3] [1] in t mode. *When cancelin checking mode executing, do "f power-off". Method: Press the "POW button on the Fr more than 10 se
Laser Used Time Indiction	Check laser used time (hours) of drive.	LASER***** ● (*****) is the used time display in hour. ● Laser used time ofDVD/ CD in Playback/ Recording mode is counted.	Press [4] [1] in s mode.
Delete the Laser Used Time	Laser used time stored in the memory of the unit is deleted.	CLR LASER	Press [9] [5] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
RAM Drive Last Error	RAM Drive error code display. *For details about the drive error code, refer to the Service Manual for the specific RAM Drive. *Details are described in “7. Service Explorer ”.	1. Error Number is displayed for 5 seconds. NO ** 2. Time when the error has occurred is displayed for 5 seconds. YMMDDhhmmss Y: Year MM: Month DD: Day hh: Hour mm: Minute ss: Second 3. Last Drive Error (1/2) is displayed for 5 seconds. ****** 4. Last Drive Error (2/2) is displayed for 5 seconds. ******** 5. Error occurring Disc type is displayedfor 5 seconds. MEDIA****** 6. Disc Maker ID is displayed for 5 seconds. ********** 7. Factor of Drive Erroroccurring is left displayed	Press [4] [2] in s mode. Then press [0] [the past 99 erro displayed. Incase that the s cannot be identi display is black

		INFO*******	

Item		FL display	Key opera
Mode name	Description		(Remote contr
Delete the Last Drive Error	Delete the Last Drive Error information stored on the DVD RAM-Drive.	CLR DRIVE	Press [9] [6] in s mode.
Turn on all FL/ LEDs	All segments of FL and all LEDs are turned on.	All segments are turned on.	Press [5] [1] in s mode.
PB HIGH Signal Output	8 pin of AV 1 Jack (PB HIGH terminal) is High (approx. 11V DC).	PB8 HIGH	Press [5] [2] in s mode.
PB MIDDLE Signal Output	8 pin of AV 1 Jack (PB HIGH terminal) is Middle (approx. 5.5V DC).	PB8 MIDDLE	Press [5] [3] in s mode.
Front connection inspection	Press all front keys and check the connection between Main P.C.B. and Front P.C.B.	000Γ (1) ** (2) (1) Each time a key is pressed, segment turned on increases one by one. (2) Total umber of keys that have been pressed.	Press [5] [4] in s mode.
Production Date Display	Display the date when the unit was produced.	PD YYYYMMDD YYY: Year MM: Month DD: Day	Press [6] [1] in s mode.
Display the accumlated working time	Display the accumulated unit's working time.	********** (Indicating unit: Second)	Press [6] [4] in s mode.

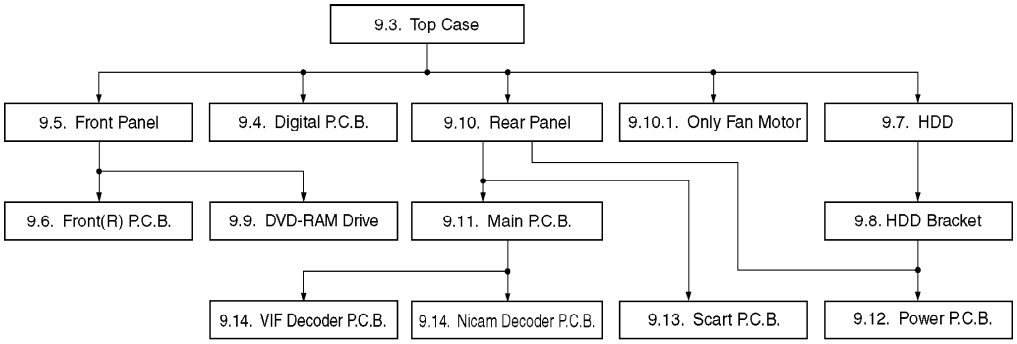
Item		FL display	Key opera
Mode name	Description		(Remote contr
Display the Error History	Display the Error History stored on the unit.	Display reason of error for 5 seconds. FTREC*** Display the time when the error has occurred for 5 seconds.. YYMMDDHHMM YY: Year MM: Month DD: Day HH: Hour MM: Minute Display the accumlated working time to occurring of the error for 5 seconds.. ********** (Indicating unit: Second)	Press [6] [5] in s mode. Then press [0] [the past 19 erro are displayed.
Delete the Error History	Delete Error History information stored on the unit.	CLR FTREC	Press [9] [7] in s mode.
AV4(V)/AV1(RGB) I /O Setting	Set input to AV4(V) and set output to AV1(RGB) for I/O checking	AV4V-AV1RGB	Press [8] [0] in s mode.
AV2(Y/C)/AV1(V) I/ O Setting	Set input to AV2(Y/C) and set output to AV1(V) for I/O checking	AV2YC-AV1V	Press [8] [1] in s mode.
AV2(V)/AV1(Y/C) I/ O Setting	Set input to AV2(V) and set output to AV1(Y/C) for I/O checking	AV2V-AV1 YC	Press [8] [2] in s mode.
AV2(RGB)/AV1(V) I /O Setting	Set input to AV2(RGB) and set output to AV1(V) for I/O checking	AV2RGB-AV1V	Press [8] [3] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
P50 (H) Output	Timer Microprocessor IC7501-22 output High signal for AV1-pin 10 passing through inverter (approx. 0V DC at AV1-pin 10).	P50 HIGHOUT When OK. P50 HIGH OK When NG. P50 HIGH NG	Press [8] [4] in s mode.
P50 (L) Output	Timer Microprocessor IC7501-22 output Low signal for AV1-pin 10 passing through inverter (approx. 4.4 V DC at AV1-pin 10).	P50 LOW OUT When OK. P50 LOW OK When NG. P50 LOW NG	Press [8] [5] in s mode.
Tray OPEN/ CLOSE Test	The RAM drive tray is opened and closed repeatedly.	NO********* "*" is number of open/ close cycle times.	Press [9] [1] in s mode *When releasing mode, press the button on Front more than 10 se
Error code initialization	Initialization of the last error code held by timer (Write in F00)	CLR E-CODE	Press [9] [8] in s mode.
Initialize Service	Last Drive Error, Error history and Error Codes stored on the unit are initialized to factory setting.	CLR SERV	Press [9] [9] in s mode.
Finishing service mode	Release Service Mode.	Display in STOP (E-E) mode. **********	Press power bu the front panel i mode.

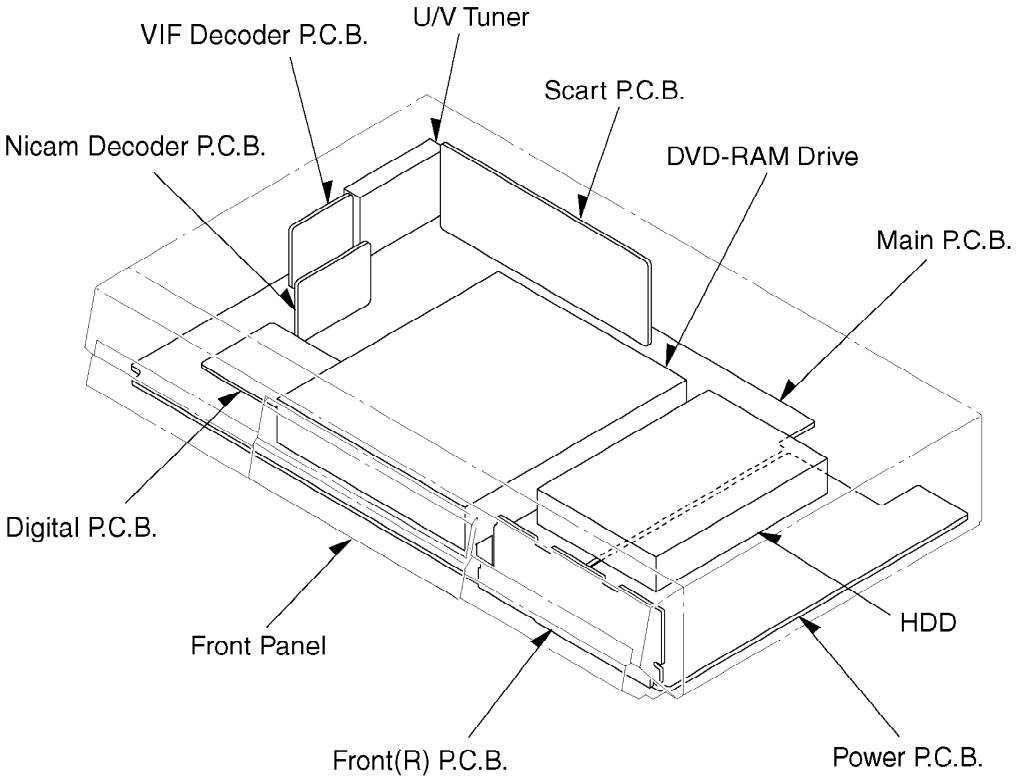
9. Assembling and Disassembling

9.1. Disassembly Flow Chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.
To assemble the unit, reverse the steps shown in the chart below.



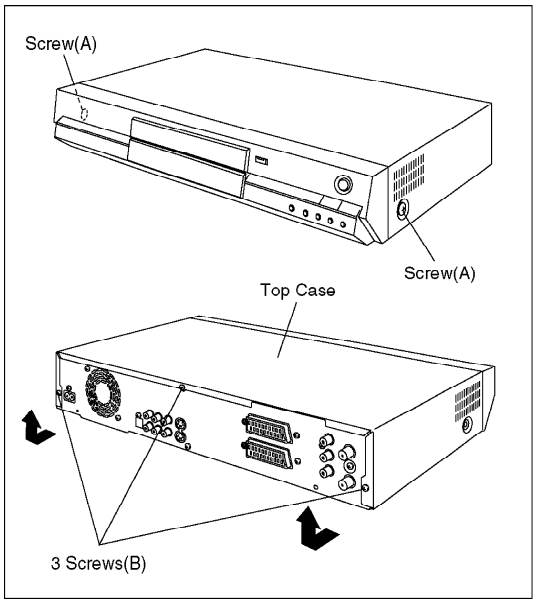
9.2. P.C.B. Positions



9.3. Top Case

1. Remove the 2 screws (A) and 3 screws (B).

2. Open the both ends at rear side of the Top Case a little and lift the Top Case in the direction of the arrows.



9.4. Digital P.C.B.

When replacing with Digital P.C.B., "UNFORMAT" indication is displayed and HDD must be formatted.
After that, **programme in the HDD will be lost**.

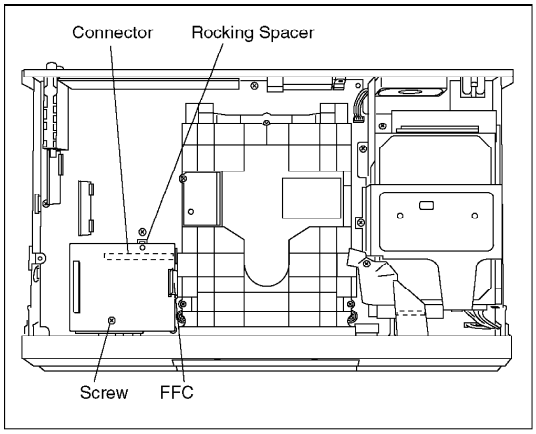
- How to format the HDD -

1) After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.
2) Select "YES" and press "ENTER" button on the remote controller, HDD will be formatted automatically.

1. Remove the FFC and a Screw.

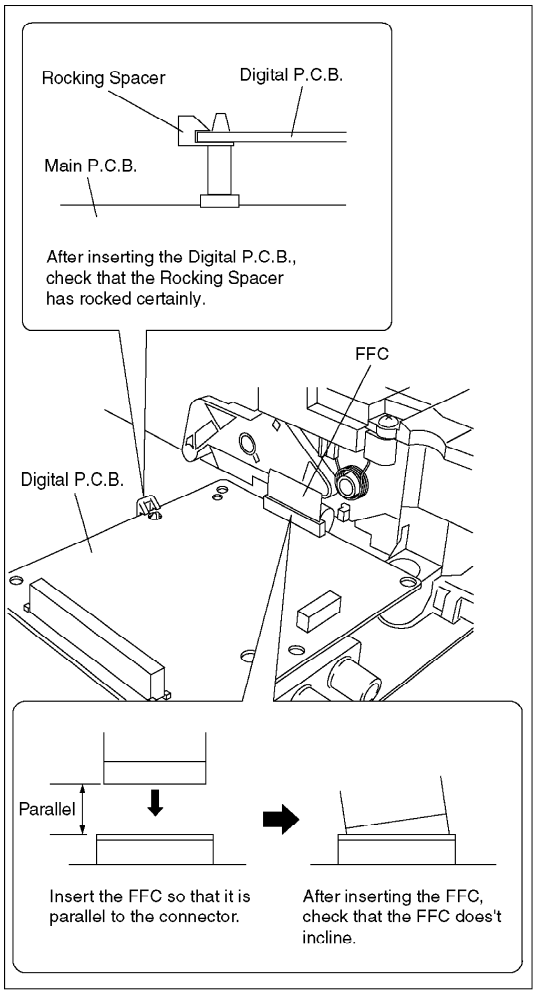
2. Unlock a Rocking Spacer.

3. Lift up Digital P.C.B. slightly so to disconnect Connector to remove Digital P.C.B.



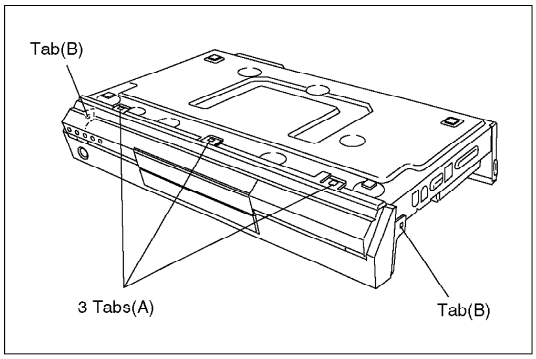
CAUTION:

When replacing Digital P.C.B., pay attention as below.

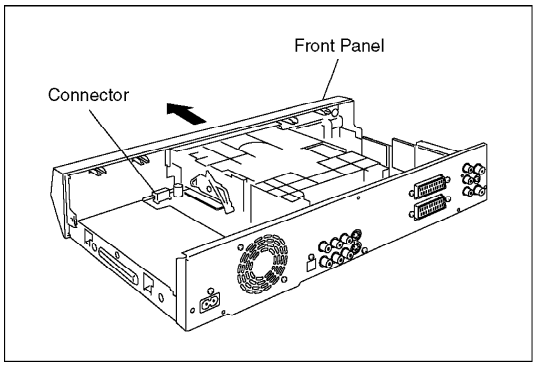

Rocking Spacer
Digital P.C.B.
Main P.C.B.
After inserting the Digital P.C.B., check that the Rocking Spacer has rocked certainly.
FFC
Digital P.C.B.
Parallel
Insert the FFC so that it is parallel to the connector.
After inserting the FFC, check that the FFC does't incline.

9.5. Front Panel

1. Remove 3 tabs (A) and 2 tabs (B) in this order. (The tab (A) and (B) should be removed at the same time, respectively.)

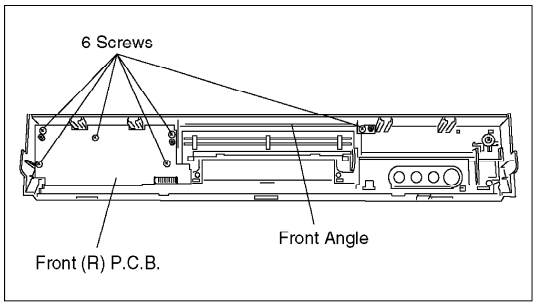


2. Move the front panel to front side straight and slowly so to remove it with Connector.



9.6. Front (R) P.C.B.

1. Remove 6 screws and Front Angle.



9.7. HDD

When replacing with HDD, "UNFORMAT" indication is displayed and HDD must be formatted.
After that, **programme in the HDD will be lost**.

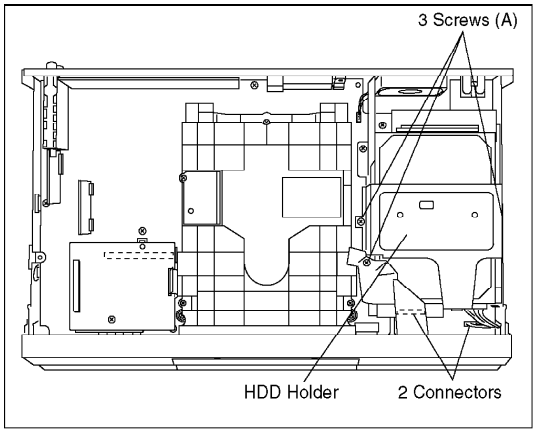
- How to format the HDD -

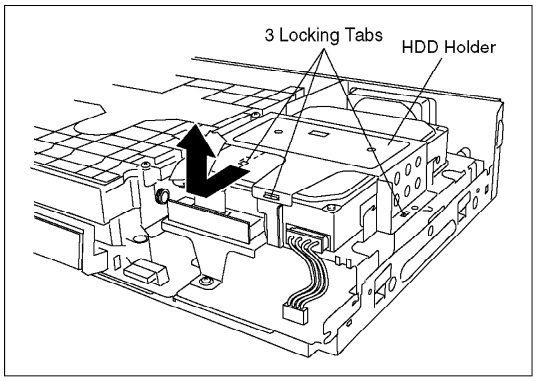
1) After "UNFORMAT" is displayed on the FL display, warning message for HDD format is appeared on the TV screen.

2) Select "YES" and press "ENTER" button on the remote controller, HDD will be formatted automatically.

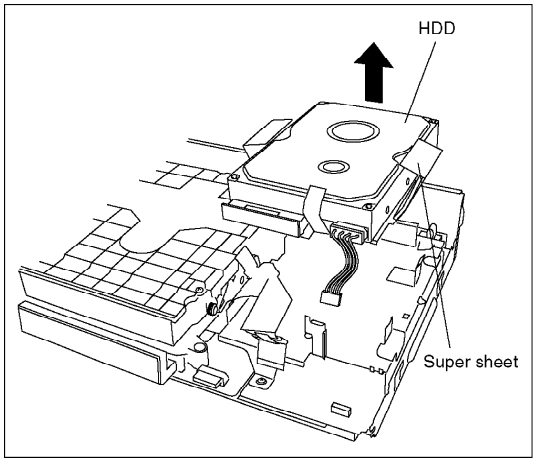
1. Remove 3 Screws (A) and 2 connectors.

2. Slide and lift up HDD Holder in the direction of the arrows so to unlock 3 locking tabs.





3. Lift up HDD with super sheet vertically and remove super sheet.



Handling of HDD

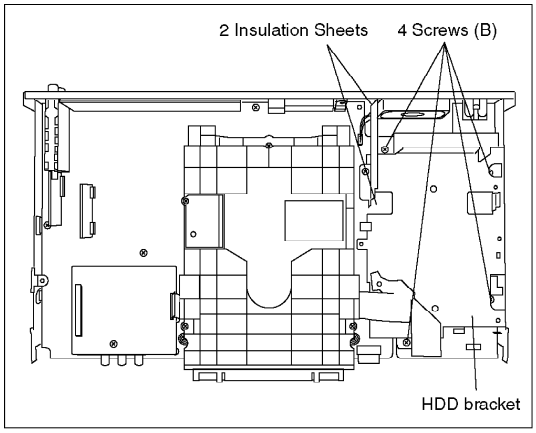
The following precautions should be taken when handling HDD.

1. Never give an impact to HDD. (Even a drop from 1cm height can be a cause of HDD failure.
2. When placing HDD on a workbench, provide a mat on a bench for shock absorption and anti-static purposes.
3. When installing HDD, release it from your hands only after confirming that it is fully set on the chassis.
4. Avoid stacking up HDD.
5. HDD is unstable and easy to fall. Do not stand it on its side face.
6. When handling HDD, hold its side faces to avoid static hazard.
7. Do not place HDD on its wrapping bag after removal. (Prevention of static hazard
8. Use a screwdriver with low impact and anti-static features.
9. To replace HDD, remove the vertical short-circuit pin.
(Keep the horizontal short-circuit pin in its place)

Note:
When replacing HDD, please make the rear jumper slave or cable select configuration.
(same configuration as HDD to exchange)

9.8. HDD Bracket

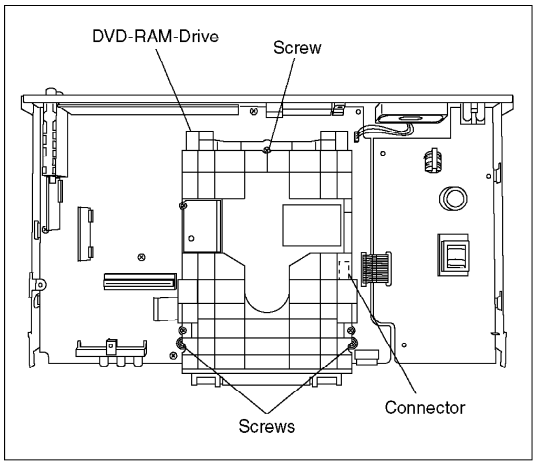
1. Remove 4 screws (B) and HDD Bracket with 2 Insulation Sheets.



9.9. DVD-RAM Drive

1. Remove 3 Screws.

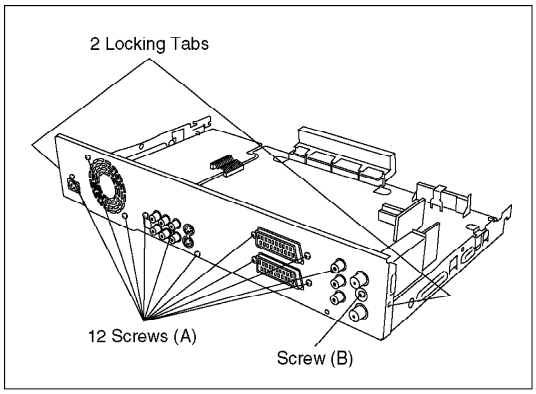
2. Pull out DVD-RAM Drive vertically so to remove it with Connector.



9.10. Rear Panel

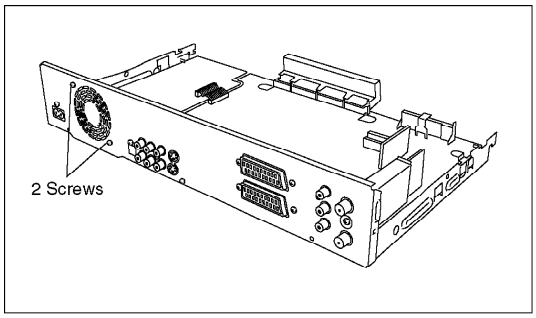
1. Remove the 12 screws (A) and screw (B).

2. Unlock 2 Locking Tabs to remove Rear Panel.

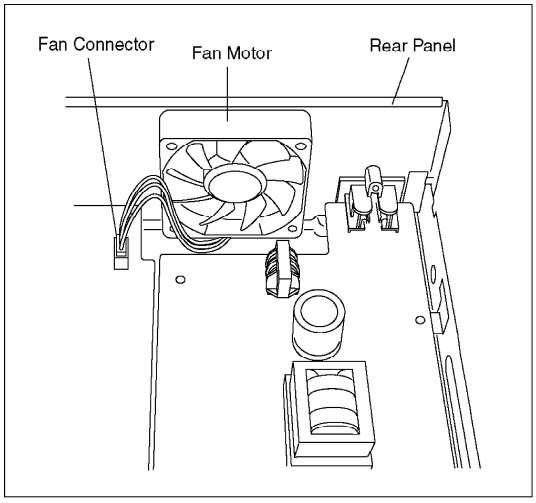


9.10.1. Only Fan Motor

1. Remove the 2 screws.

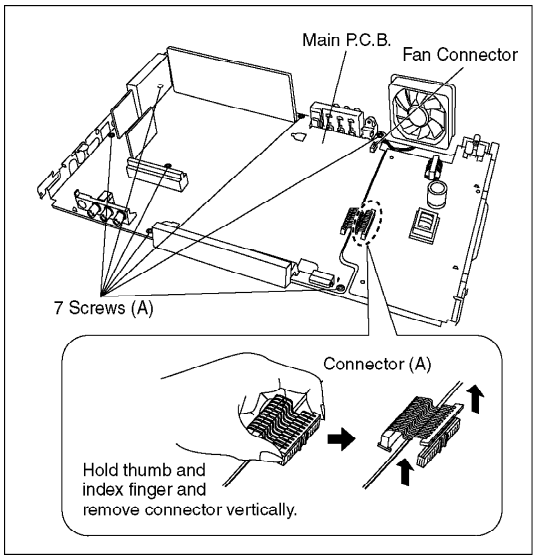


2. Remove Fan Connector to remove Fan Motor.

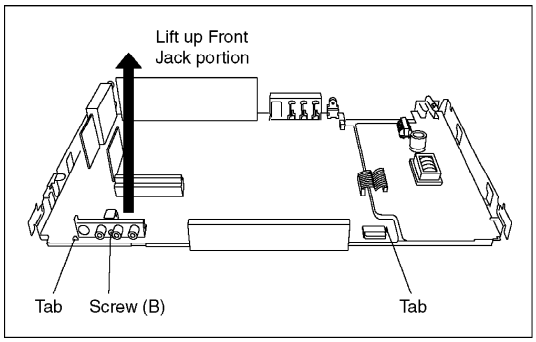


9.11. Main P.C.B.

1. Remove the 7 screws (A), Connector (A) and Fan Connector.

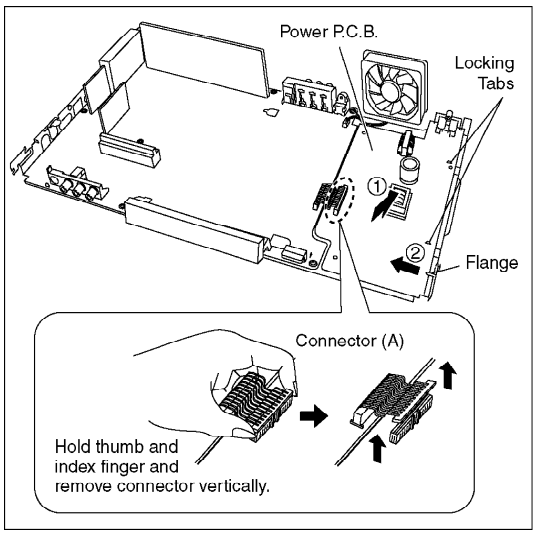


2. Remove a Screw (B) and lift up Front Jack portion of Main P.C.B. slightly so to unlock Tab to remove Main P.C.B..



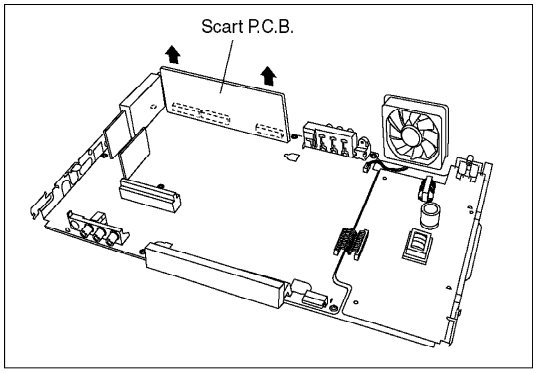
9.12. Power P.C.B.

1. Lift up Power P.C.B. a little so to unlock 2 Tabs and slide Power P.C.B. so to unlock Flange to remove Power P.C.B.

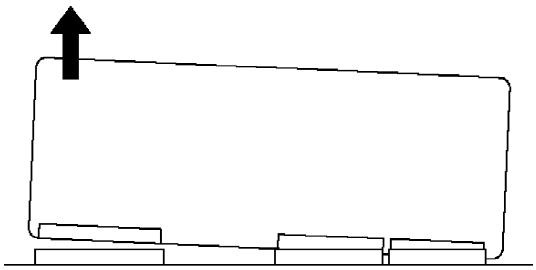


9.13. The Scart P.C.B.

1. Pull out the Scart P.C.B. in the direction of the arrow.



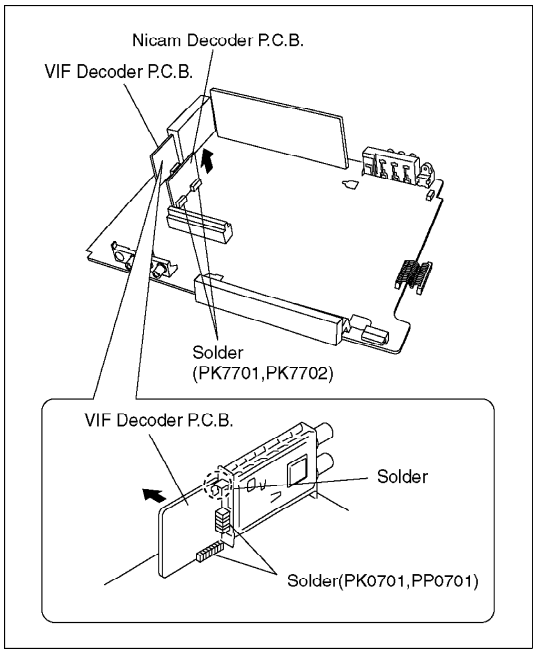
Note:
At first disconnect the connector on one side, and pull out the Scart P.C.B.



9.14. VIF Decoder P.C.B. and Nicam Decoder P.C.B.

1. Remove the solders.

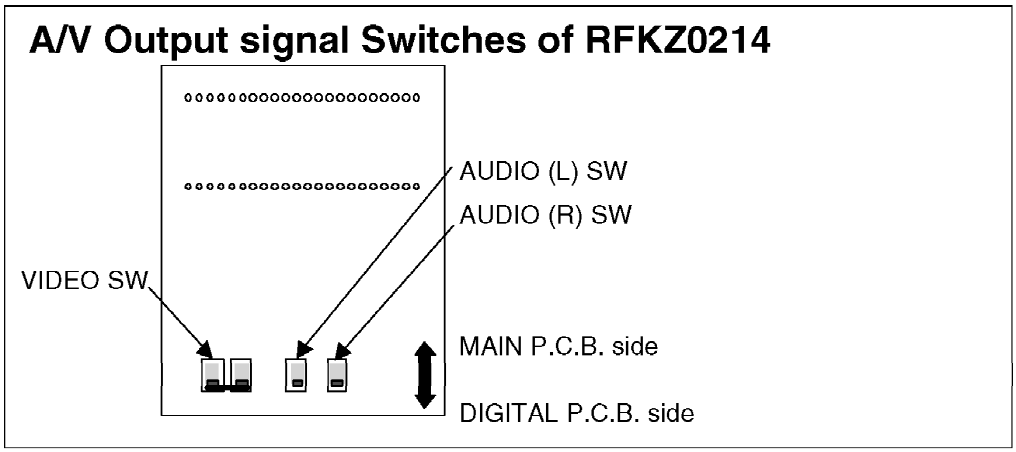
2. Pull out the VIF Decoder P.C.B. and Nicam Decoder P.C.B.



10. Service Fixture and Tools

Part Number	Description	Compatibilit
RFKZ0125	Extension FFC (Digital P.C.B. - DVD-RAM Drive / 40 Pin)	Same as E50 series
RFKZ0168	Extension Cable (Main P.C.B. - Fan / 3 Pin)	Same as E50 series
RFKZ0169	Extension Cable (Power P.C.B. - HDD / 4 Pin)	Same as E100H seri
RFKZ0197	Extension Cable (Main P.C.B. - DVD-RAM Drive / 8 Pin)	New
RFKZ0214	Extension Cable (MainP.C.B. - Digital P.C.B. / 88 Pin)	New
RFKZ0215	Extension Cable (MainP.C.B. - Front (R) P.C.B. / 12 Pin)	New
RFKZ0216	Extension Cable (MainP.C.B. - Power P.C.B. / 23 Pin)	New

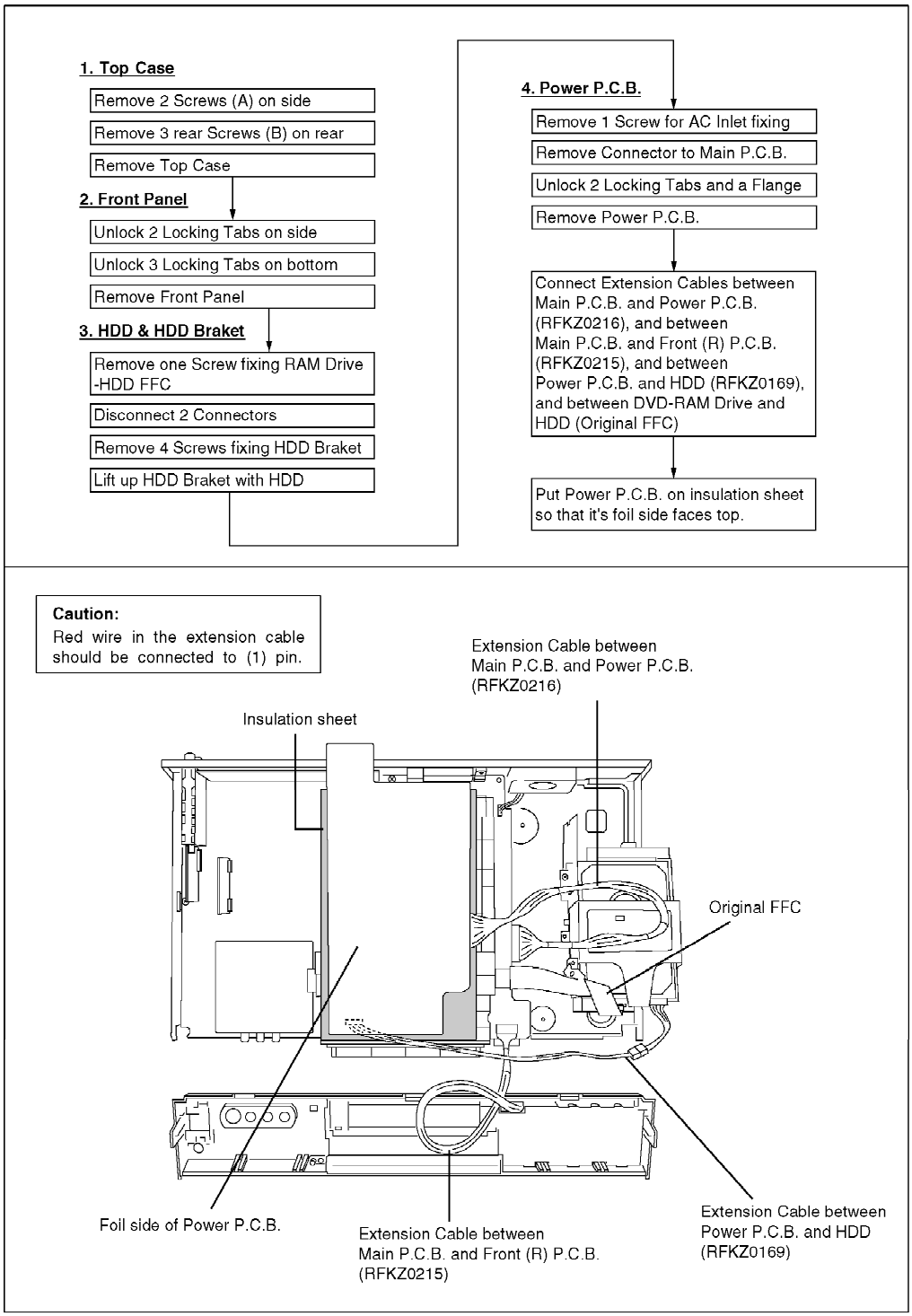
NOTE:
Extension Cable RFKZ0214 has A/V Output Signal switches.
Output signals can be switched from MAIN P.C.B. side or DIGITAL P.C.B. side.
When check MAIN P.C.B., turn switches to MAIN PCB side.
When check DIGITAL P.C.B., turn switches to DIGITAL P.C.B. side.



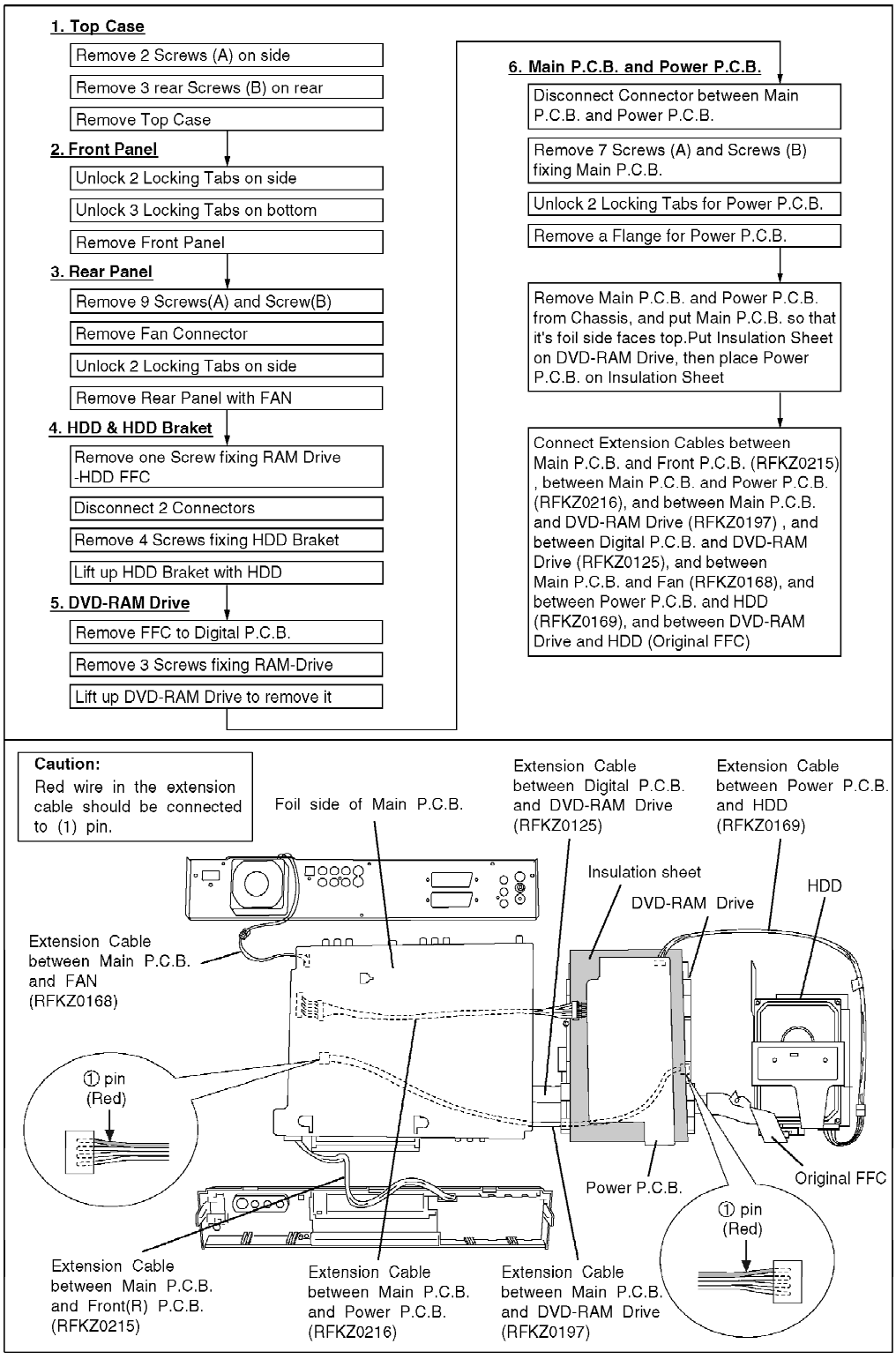
11. Service Positions

Note:
For description of the disassembling procedure, see the section 9.

11.1. Checking and Repairing of Power P.C.B.


1. Top Case
Remove 2 Screws (A) on side
Remove 3 rear Screws (B) on rear
Remove Top Case
2. Front Panel
Unlock 2 Locking Tabs on side
Unlock 3 Locking Tabs on bottom
Remove Front Panel
3. HDD & HDD Braket
Remove one Screw fixing RAM Drive -HDD FFC
Disconnect 2 Connectors
Remove 4 Screws fixing HDD Braket
Lift up HDD Braket with HDD
4. Power P.C.B.
Remove 1 Screw for AC Inlet fixing
Remove Connector to Main P.C.B.
Unlock 2 Locking Tabs and a Flange
Remove Power P.C.B.
Connect Extension Cables between Main P.C.B. and Power P.C.B. (RFKZ0216), and between Main P.C.B. and Front (R) P.C.B. (RFKZ0215), and between Power P.C.B. and HDD (RFKZ0169), and between DVD-RAM Drive and HDD (Original FFC)
Put Power P.C.B. on insulation sheet so that it's foil side faces top.
Caution:
Red wire in the extension cable should be connected to (1) pin.
Extension Cable between Main P.C.B. and Power P.C.B. (RFKZ0216)
Insulation sheet
Original FFC
Foil side of Power P.C.B.
Extension Cable between Main P.C.B. and Front (R) P.C.B. (RFKZ0215)
Extension Cable between Power P.C.B. and HDD (RFKZ0169)

11.2. Checking and Repairing of Main P.C.B.


1. Top Case
Remove 2 Screws (A) on side
Remove 3 rear Screws (B) on rear
Remove Top Case
2. Front Panel
Unlock 2 Locking Tabs on side
Unlock 3 Locking Tabs on bottom
Remove Front Panel
3. Rear Panel
Remove 9 Screws(A) and Screw(B)
Remove Fan Connector
Unlock 2 Locking Tabs on side
Remove Rear Panel with FAN
4. HDD & HDD Braket
Remove one Screw fixing RAM Drive -HDD FFC
Disconnect 2 Connectors
Remove 4 Screws fixing HDD Braket
Lift up HDD Braket with HDD
5. DVD-RAM Drive
Remove FFC to Digital P.C.B.
Remove 3 Screws fixing RAM-Drive
Lift up DVD-RAM Drive to remove it
6. Main P.C.B. and Power P.C.B.
Disconnect Connector between Main P.C.B. and Power P.C.B.
Remove 7 Screws (A) and Screws (B) fixing Main P.C.B.
Unlock 2 Locking Tabs for Power P.C.B.
Remove a Flange for Power P.C.B.
Remove Main P.C.B. and Power P.C.B. from Chassis, and put Main P.C.B. so that it's foil side faces top.Put Insulation Sheet on DVD-RAM Drive, then place Power P.C.B. on Insulation Sheet
Connect Extension Cables between Main P.C.B. and Front P.C.B. (RFKZ0215) , between Main P.C.B. and Power P.C.B. (RFKZ0216), and between Main P.C.B. and DVD-RAM Drive (RFKZ0197) , and between Digital P.C.B. and DVD-RAM Drive (RFKZ0125), and between Main P.C.B. and Fan (RFKZ0168), and between Power P.C.B. and HDD (RFKZ0169), and between DVD-RAM Drive and HDD (Original FFC)
Caution:
Red wire in the extension cable should be connected to (1) pin.
Foil side of Main P.C.B.
Extension Cable between Digital P.C.B. and DVD-RAM Drive (RFKZ0125)
Extension Cable between Power P.C.B. and HDD (RFKZ0169)
Insulation sheet
DVD-RAM Drive
HDD
Extension Cable between Main P.C.B. and FAN (RFKZ0168)
① pin (Red)
Power P.C.B.
Original FFC
① pin (Red)
Extension Cable between Main P.C.B. and Front(R) P.C.B. (RFKZ0215)
Extension Cable between Main P.C.B. and Power P.C.B. (RFKZ0216)
Extension Cable between Main P.C.B. and DVD-RAM Drive (RFKZ0197)

11.3. Checking and Repairing of Digital P.C.B.

1. Top Case

Remove 2 Screws (A) on side

Remove 3 rear Screws (B) on rear

Remove Top Case

2. Digital P.C.B.

Remove FFC to RAM-Drive

Unlock a Rocking Spacer

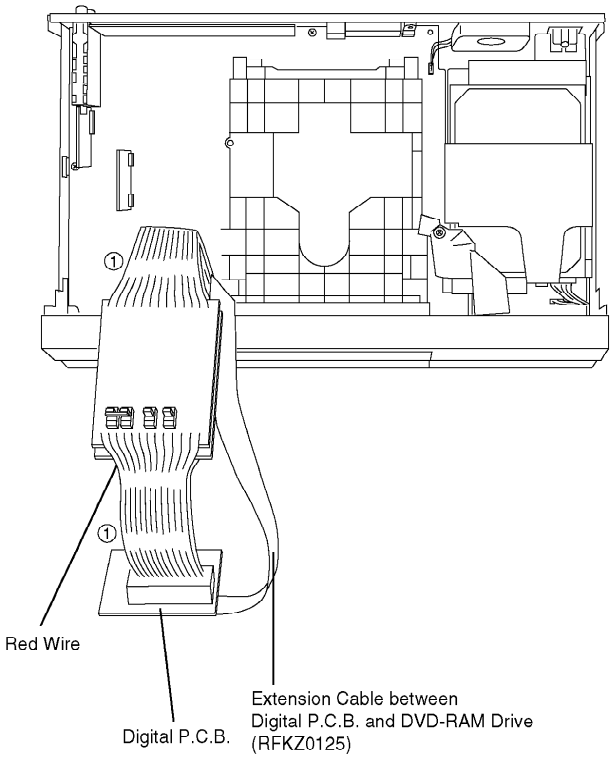
Remove a Screw fixing Digital P.C.B.

Lift up Digital P.C.B. to remove it

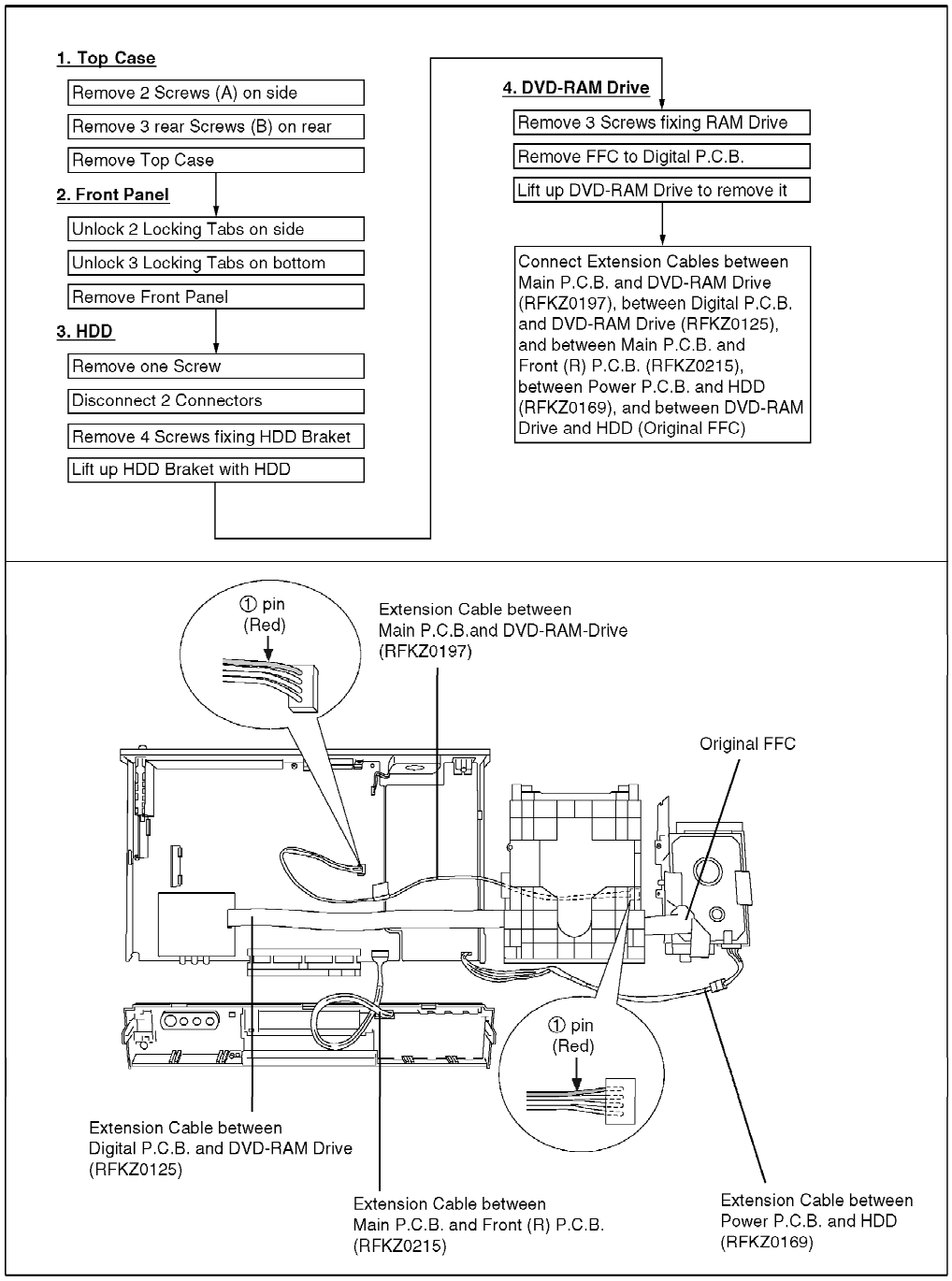
Connect Extension Cables between Main P.C.B. and Digital P.C.B. (RFKZ0214), and between Digital P.C.B. and DVD-RAM Drive (RFKZ0125).

Extension Cable between Main P.C.B. and Digital P.C.B. (RFKZ0214)

Caution:
Red wire in the extension cable should be connected to (1) pin.



11.4. Checking and Repairing of DVD-RAM Drive


1. Top Case
Remove 2 Screws (A) on side
Remove 3 rear Screws (B) on rear
Remove Top Case
2. Front Panel
Unlock 2 Locking Tabs on side
Unlock 3 Locking Tabs on bottom
Remove Front Panel
3. HDD
Remove one Screw
Disconnect 2 Connectors
Remove 4 Screws fixing HDD Braket
Lift up HDD Braket with HDD
4. DVD-RAM Drive
Remove 3 Screws fixing RAM Drive
Remove FFC to Digital P.C.B.
Lift up DVD-RAM Drive to remove it
Connect Extension Cables between Main P.C.B. and DVD-RAM Drive (RFKZ0197), between Digital P.C.B. and DVD-RAM Drive (RFKZ0125), and between Main P.C.B. and Front (R) P.C.B. (RFKZ0215), between Power P.C.B. and HDD (RFKZ0169), and between DVD-RAM Drive and HDD (Original FFC)
① pin (Red)
Extension Cable between Main P.C.B.and DVD-RAM-Drive (RFKZ0197)
Original FFC
① pin (Red)
Extension Cable between Digital P.C.B. and DVD-RAM Drive (RFKZ0125)
Extension Cable between Main P.C.B. and Front (R) P.C.B. (RFKZ0215)
Extension Cable between Power P.C.B. and HDD (RFKZ0169)

11.5. Checking and Repairing of HDD

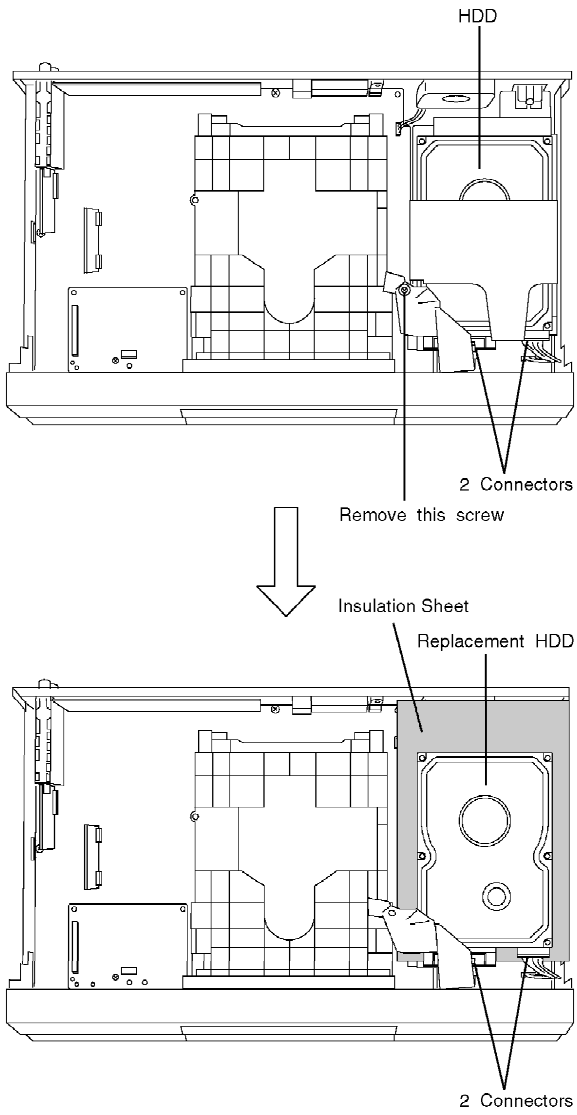
1. Top Case

Remove 2 Screws (A) on side

Remove 3 rear Screws (B).on rear

Remove Top Case

(1) Remove one Screw fixing RAM Drive-HDD FFC
(2) Disconnect 2 Connectors
(3) Put a Insulation Sheet on HDD
(4) Put Replacement HDD on the Insulation Sheet
(5) Connect 2 Connectors to Replacement HDD



12. Adjustment Procedures

12.1. After replacing the RAM Drive with new one

After replacing of RAM drive unit, TEST mode is not necessary. Please confirm operation for RAM drive.

12.2. When the unit does not operate normally after replacing the Timer Microprocessor with new one

in order to transmit the

Step	Operation	Descriptions
1	While power is ON, short IC7508-4 pin (RESET) and the GND.	"RESET (L)" is transmitted to th terminal of Timer Microprocesso 11 pin), then the unit operates n

13. Standard Inspection Specifications after Making Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert RAM disc.	The Panasonic RAM disc should be reco
3	Enter the EE (TU IN / AV IN - AV OUT) mode.	No abnormality should be seen in the pic sound or operation.
4	Perform auto recording and playback for one minute using the RAM disc.	No abnormality should be seen in the pic sound or operation.
5	Model with the HDD : Perform auto recording and playback for one minute using the HDD	No abnormality should be seen in the pic sound or operation. *Panasonic DVD-R disc should be used v recording and playback.
6	If a problem is caused by a VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the pic sound or operation.
7	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [FIRM_SUCCESS] appear FL displays. *[UNSUPPORT] display means the unit is updated to newest same version. Then ve up is not necessary.
8	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [CLR SERV] appears in th display. After checking it, turn the power off.
9	When replacing of RAM drive, transfer [9] [5] in the service mode setting to delete Laser used time.	Make sure that [CLR LASER] appears in t display. After that, turn power off.

Use the following checklist to establish the judgement criteria for the picture and sound.

Item	Contents	Check	Item	Contents
Picture	Block noise		Sound	Distorted sound
	Crosscut noise			Noise (static, background noise, etc.)
	Dot noise			The sound level is too low.
	Picture disruption			The sound level is too high.
	Not bright enough			The sound level changes.
	Too bright			
	Flickering color			
	Color fading			

14. Voltage and Waveform Chart

Note)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

14.1. Power P.C.B.

14.2. Main P.C.B.

14.3. Nicam Decoder P.C.B.

14.4. Scart P.C.B.

14.5. Front (R) P.C.B.

14.6. P9001 Connector

14.7. Waveform Chart

Note:
The waveforms are measured with PAL colour bar signal.

15. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	
	ASI	AUDIO RF
	ASO	SERVO AMP INVERTED INPUT
	ASYNC	SERVO AMPOUTPUT
		AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR
	CBDO	VELOCITY
	CD	CAP. BLACK DROP OUT
	CDSCK	COMPACT DISC
	CDSRDATA	CD SERIAL DATA CLOCK
		CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCKSELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIPSELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATAOUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	FOCUS ERROR AMP OUTPUT
	FG	FREQUENCY GENERATOR
	FSC	FREQUENCY SUB CARRIER
	FSCK	FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	INTERPOLATION FLAG
	IREF	I (CURRENT) REFERENCE
	ISEL	INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORYSERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK / PLLOK	CHANNEL PLL CLOCK PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVEA
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECTCLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUBCODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATAVALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA

	SYSCLK	SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSSSIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLYVOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPTREQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIPSELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE X VERTICAL SYNC OUTPUT

16. Block Diagram

16.1. Power Supply Block Diagram

16.2. Analog Video Block Diagram

16.3. Analog Audio Block Diagram

16.4. Timer Block Diagram

16.5. Digital Block Diagram

16.6. Digital Block IC Pin Terminal Chart

17. Schematic Diagram

17.1. Interconnection Schematic Diagram

17.2. Main Power Supply Schematic Diagram

17.3. Sub Power Supply Section (Main P.C.B. (1/5)) Schematic Diagram (P)

17.4. Main Net Section (Main P.C.B. (2/5)) Schematic Diagram (M)

17.5. Video I/O Section (Main P.C.B. (3/5)) Schematic Diagram (V)

17.6. Audio Main Section (Main P.C.B. (4/5)) Schematic Diagram (A)

17.7. Timer Section (Main P.C.B. (5/5)) Schematic Diagram (T)

17.8. Glue Net Section (Digital P.C.B. (1/5)) Schematic Diagram (GN)

17.9. AV Encoder Section (Digital P.C.B. (2/5)) Schematic Diagram (EN)

17.10. Real Time Stream Control (RTSC) Section (Digital P.C.B. (3/5)) Schematic Diagram (TR)

17.11. AV Decoder/Main CPU Section (Digital P.C.B. (4/5)) Schematic Diagram (MC)

17.12. Audio I/O Section (Digital P.C.B. (5/5)) Schematic Diagram (AI)

17.13. VIF Decoder Schematic Diagram

17.14. Nicam Decoder Schematic Diagram

17.15. Scart Schematic Diagram

17.16. Front (R) Schematic Diagram

18. Print Circuit Board

18.1. Power P.C.B.

18.2. Main P.C.B.

18.2.1. Main P.C.B. (1/4 Section)

18.2.2. Main P.C.B. (2/4 Section)

18.2.3. Main P.C.B. (3/4 Section)

18.2.4. Main P.C.B. (4/4 Section)

18.2.5. Main P.C.B. Address Information

18.3. Digital P.C.B.

18.3.1. Digital P.C.B. (Component Side)

18.3.2. Digital P.C.B. (Foil Side)

18.3.3. Digital P.C.B. Address Information

18.4. VIF Decoder P.C.B.

18.5. Nicam Decoder P.C.B.

18.6. Scart P.C.B.

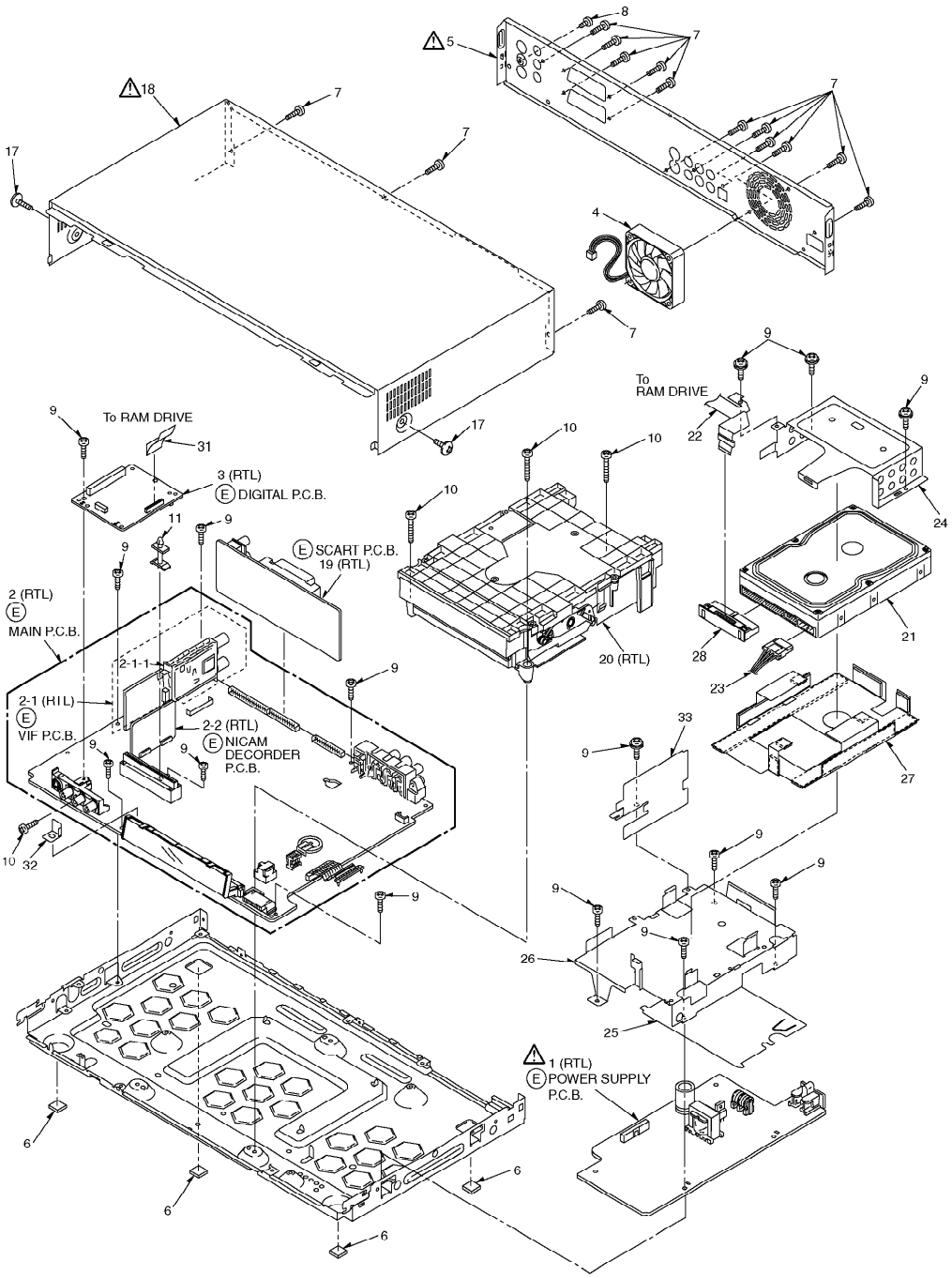
18.6.1. Scart P.C.B. (Section 1/2)

18.6.2. Scart P.C.B. (Section 2/2)

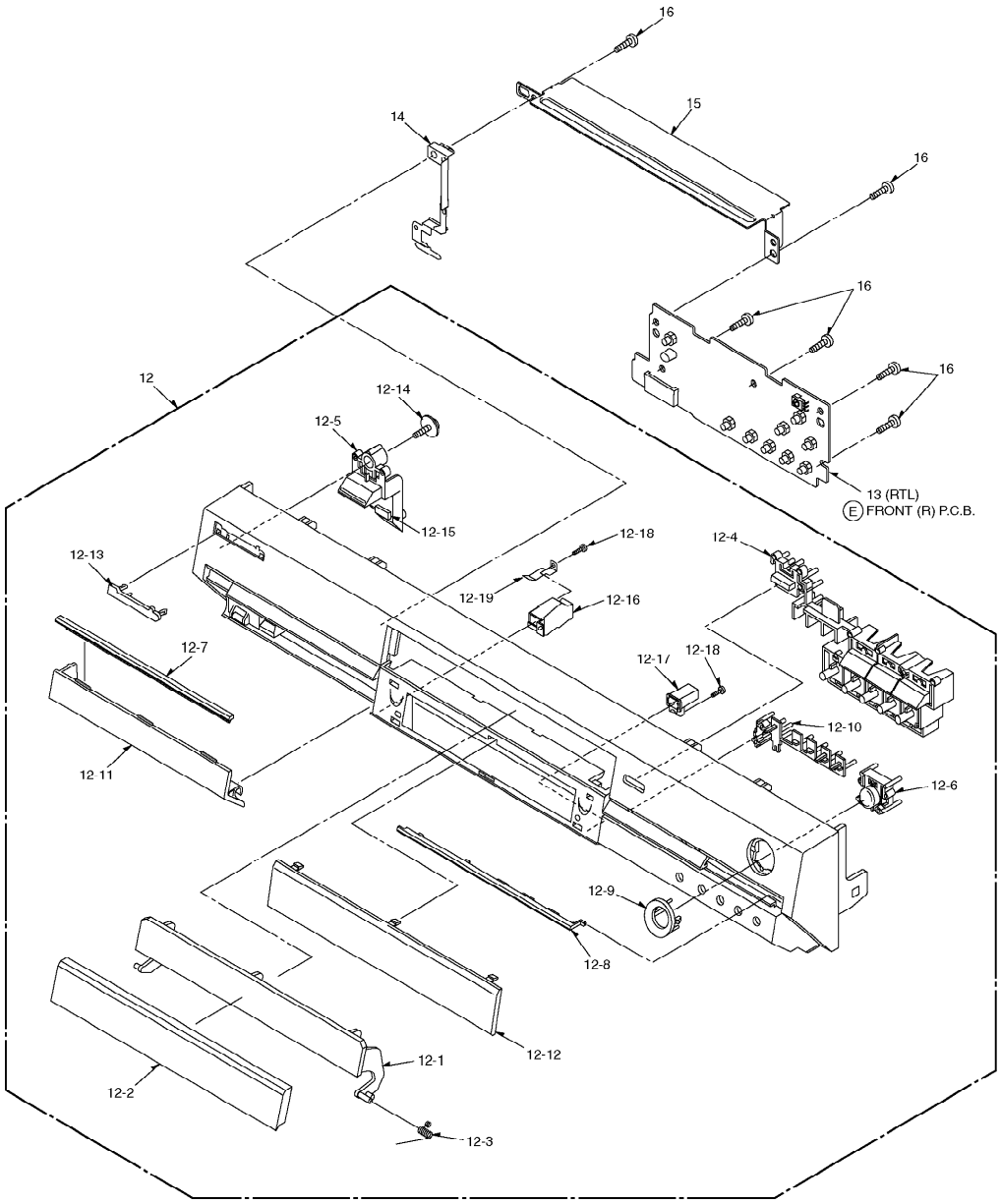
18.7. Front (R) P.C.B.

19. Exploded Views

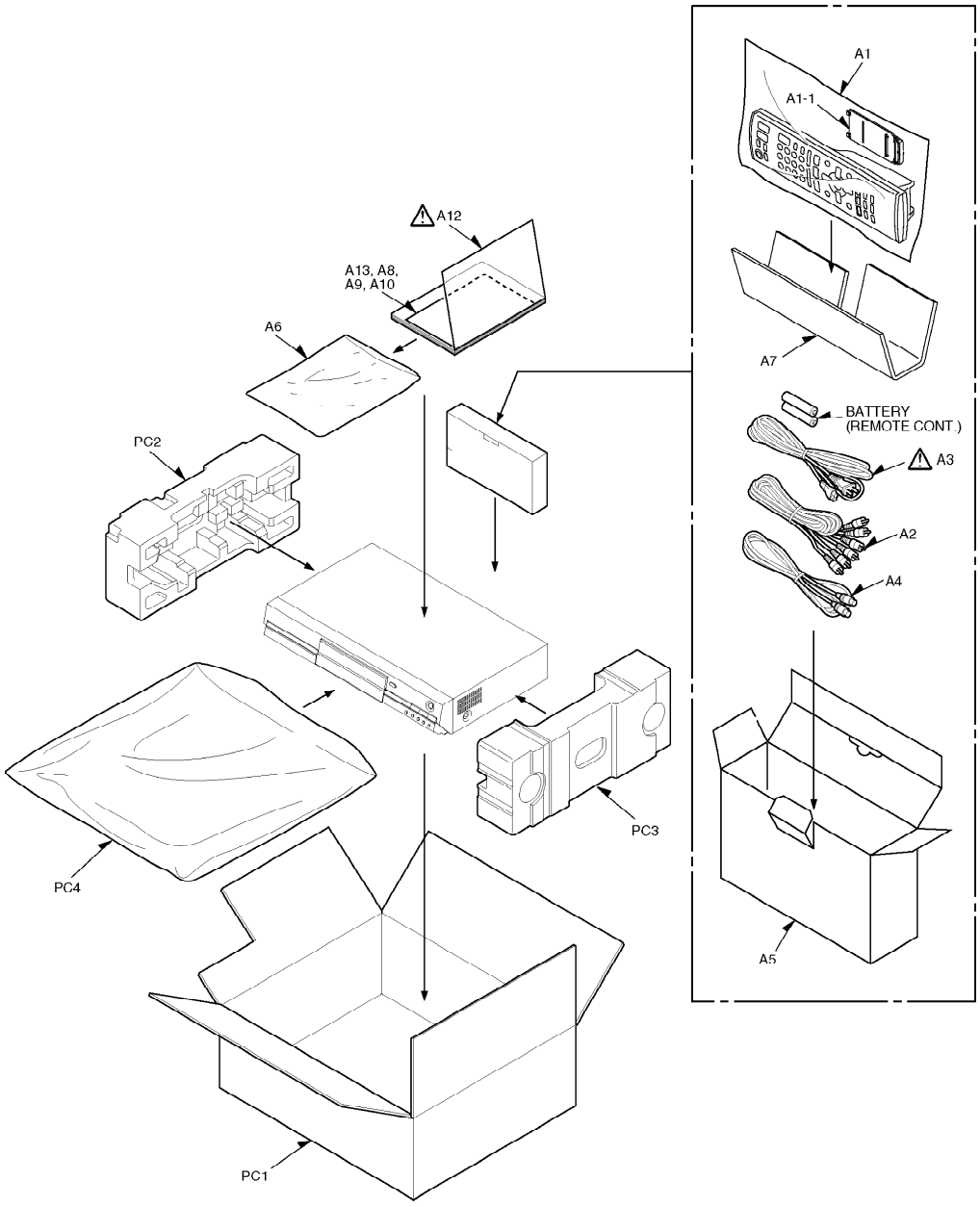
19.1. Casing Parts & Mechanism Section 1



19.2. Casing Parts & Mechanism Section 2



19.3. Packing & Accessories Section



20. Replacement Parts List

Notes:

***Important safety notice:**

Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.

***Warning: This product uses a laser diode. Refer to caution statements.**

***Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).**

***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).**

***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation**

of this assembly in production, it will no longer be available.
***"<IA>", mark in Remarks indicate language of instruction manual. [<IA>: Polish] All parts are supplied by S.P.C..**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	01	CASING/ACCESSORY/PACKING		
1	ETXMM507E4F	POWER SUPPLY P.C.B.	1	(RTL) ⚠
2	REP3766C	MAIN P.C.B.	1	(RTL)
2-1	VEP07A71N	VIF P.C.B.	1	(RTL)
2-1-1	VMP5897	VIF ANGLE	1	
2-2	VEP07A51A	NICAM DECORDER P.C.B.	1	(RTL)
3	RFKBE85HEP	DIGITAL P.C.B.	1	
4	L6FAKCCE0002	FAN MOTOR	1	
5	RGR0350C1D	REAR PANEL	1	⚠
6	RKA0144-K	FOOT RUBBER	4	
7	VHD0690	SCREW	14	
8	XSN3+4FZ	SCREW	1	
9	RHD30111	SCREW	15	
10	RHD30115	SCREW	4	
11	RMX0298	PCB SPACER	1	
12	RYP1243B-S	FRONT PANEL ASS'Y1	1	
12-1	RKF0700-S	TRAY DOOR	1	
12-2	RGK1810-S	TRAY ORNAMENT	1	
12-3	VMB3410	TRAY SPRING	1	
12-4	RGU2318A-S	OPERATION BUTTON	1	
12-5	RGU2289-S	POWER BUTTON	1	
12-6	RGU2291A-Q	REC BUTTON	1	
12-7	RGK1774-S	FRONT ORNAMENT(L)	1	
12-8	RGK1775-S	FRONT ORNAMENT(R)	1	
12-9	RGK1773-S	REC BUTTON RING	1	
12-10	RGL0663-Q	PANEL LIGHT	1	
12-11	RKF0689B-S	PANEL DOOR	1	
12-12	RGK1811-S	FL ORNAMENT	1	
12-13	VGB0560	PANASONIC BADGE	1	
12-14	RHD26016	SCREW	1	
12-15	RMX0299	DAMPER SHEET	1	
12-16	RMR1637-W	REFLECTOR DVD	1	
12-17	RMR1638-W	REFLECTOR HDD	1	
12-18	XTN2+6G	SCREW	2	
12-19	RMR1655-W	REFLECTOR COVER	1	
13	REP3713B	FRONT(R) P.C.B.	1	(RTL)
14	RMC0595	EARTH PLATE	1	
15	RMA1778	FRONT ANGLE	1	
16	XTBS26+10J	SCREW	6	
17	RHD30113	SCREW	2	
18	RKM0508-S	TOP COVER	1	⚠
19	REP3682A	SCART P.C.B.	1	(RTL)
20	VXY1814	RAM DRIVE UNIT	1	(RTL)
21	RFKV0033HDK	HDD 80GB	1	
22	VEK0G75	FFC(42P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
23	VEE0Z41	WIRE WITH CONNECTOR	1	
24	RMA1835	HDD HOLDER	1	
25	RMZ0747	INSULATED SHEET	1	
26	RMA1834	HDD BRACKET	1	
27	RXQ1208	SUPER SHEET UNIT	1	
28	K1MZ40Z00002	HDD CONNECTOR	1	
31	VWJ1724	FFC(42P)	1	
32	RMR1656-W	LED COVER	1	
33	RMV0282	BARRIER	1	
A1	EUR7721KH0	REMOTE CONTROL ASS'Y	1	
A1-1	UR77EC2003A	BATTERY COVER	1	
A2	K2KA6CA00001	AV CORD	1	
A3	VJA0664	AC CORD	1	K2CR2DA00004 ⚠
A4	VJA1089	RF COAXIAL CABLE	1	K1TWACC00001
A5	RPQF0250	ACCESSORY CASE	1	
A6	RPF0378	POLYETHYLENE BAG(F.B.)	1	
A7	RPQ1594	PAD	1	
A8	RQCA1223	HDD CAUTION SHEET	1	
A9	RQCA1231	PAL PROGRESSIVE SHEET	1	
A10	RQCA1246	DVD-R REC SHEET	1	
A12	RQT7459-R	OPERATING INSTRUCTIONS	1	<IA> ⚠
A13	RQCA1217	DISC CAUTION SHEET	1	
PC1	RPG7133	PACKING CASE	1	
PC2	RPN1706A	CUSHION A	1	
PC3	RPN1706B	CUSHION B	1	
PC4	VPF0505	POLYETHYLENE BAG(UNIT)	1	
■	02	REP3766C		(MAIN P.C.B.)
C1503	ECJ1VB1A105K	10V 1U	1	
C1504	ECJ1XB1C104K	16V 0.1U	1	
C1505	F2A1A470A388	10V 47U	1	
C1512	ECJ1VB0J105K	6.3V 1U	1	
C1513	ECJ1VB1A105K	10V 1U	1	
C1514	ECJ1VB0J105K	6.3V 1U	1	
C1515	ECJ1XB1C104K	16V 0.1U	1	
C1516	ECJ1VB1A105K	10V 1U	1	
C1518	F2A1A470A388	10V 47U	1	
C1519	ECJ1XB1C104K	16V 0.1U	1	
C1520	ECJ1VB1A105K	10V 1U	1	
C1521	ECJ1VB0J105K	6.3V 1U	1	
C1522	ECJ1VC1H331J	50V 330P	1	
C1523	ECJ1VB1A105K	10V 1U	1	
C1524	F2A1A470A388	10V 47U	1	
C1527,28	ECJ1VB0J105K	6.3V 1U	2	
C1531	F2A1A470A388	10V 47U	1	
C1533,34	ECJ1VB0J105K	6.3V 1U	2	
C1537	EEUFC1E101S	25V 100U	1	
C1539	F2A0J102A256	6.3V 1000U	1	
C1540	F2A1E4700048	25V 47U	1	
C1541	F2A1A471A211	10V 470U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1543	F2A1E221A210	25V 220U	1	
C3003	ECJ1VB1H103K	50V 0.01U	1	
C3004	ECEA1AKS221	10V 220U	1	
C3005	ECJ1VB1C333K	16V 0.033U	1	
C3006	ECJ1XB1C104K	16V 0.1U	1	
C3007	ECJ1VB1H103K	50V 0.01U	1	
C3009,10	ECJ1VB1H103K	50V 0.01U	2	
C3012-17	ECJ1VB1H103K	50V 0.01U	6	
C3018	ECEA0JKS101	6.3V 100U	1	
C3019-21	ECJ1VB1H103K	50V 0.01U	3	
C3022	ECEA0JKS220	6.3V 22U	1	
C3023	ECEA0JKN470	6.3V 47U	1	
C3024	ECEA0JKS220	6.3V 22U	1	
C3025-29	ECEA0JKN470	6.3V 47U	5	
C3030,31	ECJ1VB1H103K	50V 0.01U	2	
C3032	ECEA0JKS331	6.3V 330U	1	
C3033	ECEA1CKS220	16V 22U	1	
C3034	ECEA0JKS331	6.3V 330U	1	
C3035	ECEA1CKS220	16V 22U	1	
C3036	ECEA0JKS331	6.3V 330U	1	
C3037	ECEA1CKS220	16V 22U	1	
C3038	ECJ1XB1C104K	16V 0.1U	1	
C3039	ECJ1VB0J105K	6.3V 1U	1	
C3040	ECJ1VB1H103K	50V 0.01U	1	
C3041	ECEA1AKS221	10V 220U	1	
C3042	ECJ1VB0J105K	6.3V 1U	1	
C3045,46	ECEA0JKN470	6.3V 47U	2	
C3047	ECJ1XB1C104K	16V 0.1U	1	
C3048	ECA0JM102	6.3V 1000U	1	
C3049	ECEA0JKS101	6.3V 100U	1	
C3051	ECA0JM102	6.3V 1000U	1	
C3052	ECEA0JKS101	6.3V 100U	1	
C3053	ECA0JM102	6.3V 1000U	1	
C3054	ECEA0JKS101	6.3V 100U	1	
C3055,56	ECEA0JKS331	6.3V 330U	2	
C3057-60	ECJ1VC1H471J	50V 470P	4	
C3061,62	ECJ1VC1H470J	50V 47P	2	
C3064	ECJ1XB1C104K	16V 0.1U	1	
C3065	ECJ1VB1H103K	50V 0.01U	1	
C3066,67	ECJ1VB0J105K	6.3V 1U	2	
C3069-71	ECJ1VB1H103K	50V 0.01U	3	
C4003,04	ECJ1VB1H103K	50V 0.01U	2	
C4005-07	F2A1H1R0A236	50V 1U	3	
C4008	F2A1C221A019	16V 220U	1	
C4010	F2A1H1R0A236	50V 1U	1	
C4012	ECJ2VB1E104K	25V 0.1U	1	
C4014	F2A1H100A236	50V 10U	1	
C4017	F2A1H100A236	50V 10U	1	
C4019	VCEA1CAE100	16V 10U	1	F2A1C1000008
C4021	VCEA1CAE100	16V 10U	1	F2A1C1000008
C4022	ECJ1XB1C104K	16V 0.1U	1	
C4023	F2A1H1R0A236	50V 1U	1	
C4024	F2A1C471A236	16V 470U	1	
C4025	F2A1H1R0A236	50V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4026	ECJ1VF1C104Z	16V 0.1U	1	
C4027	F2A1H1R0A236	50V 1U	1	
C4029	F2A1C471A236	16V 470U	1	
C4030	ECJ1VF1C104Z	16V 0.1U	1	
C4031	F2A1H1R0A236	50V 1U	1	
C4033,34	F2A1C4700011	16V 47U	2	
C4039,40	ECJ1VC1H100C	50V 10P	2	
C4052	ECJ1VF1C104Z	16V 0.1U	1	
C4053	ECJ1XB1C104K	16V 0.1U	1	
C4054	F2A0J470A179	6.3V 47U	1	
C4055	ECJ1VF1C104Z	16V 0.1U	1	
C4056	F2A0J471A247	6.3V 470U	1	
C4057	ECJ2VC1H680J	50V 68P	1	
C4059	ECQV1H104JL	50V 0.1U	1	
C4060	ECJ2VC1H680J	50V 68P	1	
C4061	ECJ1VF1C104Z	16V 0.1U	1	
C4062	ECA1AM221	10V 220U	1	
C4063,64	F2A1C4700011	16V 47U	2	
C4065	ECJ1VF1C104Z	16V 0.1U	1	
C4067	F2A0J470A179	6.3V 47U	1	
C4069	ECJ1VF1C104Z	16V 0.1U	1	
C4070	ECA1AM221	10V 220U	1	
C4072	ECA1AM221	10V 220U	1	
C4074,75	ECJ1VF1C104Z	16V 0.1U	2	
C4076	F2A1C471A236	16V 470U	1	
C4077	ECJ1VF1C104Z	16V 0.1U	1	
C4082,83	ECJ2VC1H561J	50V 560P	2	
C4091	ECJ1VF1C104Z	16V 0.1U	1	
C4092	F2A1C221A019	16V 220U	1	
C7401	F2A1C471A236	16V 470U	1	
C7402	ECJ1VB1H103K	50V 0.01U	1	
C7403	F2A0J470A179	6.3V 47U	1	
C7404	ECEA0JKS470	6.3V 47U	1	
C7405,06	ECJ1XB1C104K	16V 0.1U	2	
C7407	ECJ1VB1H103K	50V 0.01U	1	
C7408	ECJ1XB1C104K	16V 0.1U	1	
C7409	ECJ1VB1H103K	50V 0.01U	1	
C7411,12	ECJ1VB1H103K	50V 0.01U	2	
C7414	ECEA1HKS010	50V 1U	1	
C7415-17	ECEA0JKS470	6.3V 47U	3	
C7418,19	ECJ1VC1H330J	50V 33P	2	
C7420	ECJ1XB1C104K	16V 0.1U	1	
C7421,22	ECJ1VB1H103K	50V 0.01U	2	
C7423	ERJ3GEY0R00V	1/10W 0	1	
C7424	ECEA0JKS470	6.3V 47U	1	
C7425	ECJ1VC1H101J	50V 100P	1	
C7426	ECJ1XB1C104K	16V 0.1U	1	
C7427	ECJ1VB1H222K	50V 2200P	1	
C7428	ECJ2VB1H103K	50V 0.01U	1	
C7429	ECJ1XB1C104K	16V 0.1U	1	
C7431-33	ECEA0JKS470	6.3V 47U	3	
C7439	ECJ1XB1C104K	16V 0.1U	1	
C7440	ECEA0JKS470	6.3V 47U	1	
C7441	ECJ1XB1C104K	16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7502-04	F2A0J470A012	6.3V 47U	3	
C7507	VCE0073-T	CAPACITOR	1	F4D55473A005
C7508,09	ECJ1VC1H221J	50V 220P	2	
C7511	ECJ1VF1C104Z	16V 0.1U	1	
C7512	ECJ1VC1H470J	50V 47P	1	
C7513	ECJ1VC1H471J	50V 470P	1	
C7514	ECJ1VC1H470J	50V 47P	1	
C7515	ECJ1VC1H471J	50V 470P	1	
C7516,17	ECJ1XB1C104K	16V 0.1U	2	
C7525	ECJ1VC1H101J	50V 100P	1	
C7526	ECJ1XB1C104K	16V 0.1U	1	
C7527	F2A0J470A012	6.3V 47U	1	
C7528	ECJ1VF1C104Z	16V 0.1U	1	
C7529	F2A0J470A012	6.3V 47U	1	
C7546	ECJ1XB1C104K	16V 0.1U	1	
C7550	ECJ1VB1H103K	50V 0.01U	1	
C7551	ECA1HHG100	50V 10U	1	
C7552	ECJ1VF1H104Z	50V 0.1U	1	
C7555	F2A1E221A210	25V 220U	1	
C7556	ECA1CHG221	16V 220U	1	
C7558	ECA1VHG470	35V 47U	1	
C7559	ECQB1H223KF3	50V 0.022U	1	
C7560	ECA1HHG100	50V 10U	1	
C7562	ECJ2YB0J475K	6.3V 4.7U	1	
C7563	ECJ1VC1H101J	50V 100P	1	
C7565	ECJ2YB0J475K	6.3V 4.7U	1	
C7566,67	ECJ1XB1C104K	16V 0.1U	2	
C7568	VCEA0JBS101	6.3V 100U	1	F2A0J1010003
C7569	ECJ1VF1C104Z	16V 0.1U	1	
C7580-82	ECJ1VC1H100C	50V 10P	3	
C7583	ECJ1VC1H101J	50V 100P	1	
C7584,85	ECJ1VC1H180J	50V 18P	2	
C7586	ECJ1VC1H220J	50V 22P	1	
C7587	ECJ1VC1H180J	50V 18P	1	
C7588	ECJ1VB1H103K	50V 0.01U	1	
C7589	ECJ1VF1C104Z	16V 0.1U	1	
C7590	F2A0J470A012	6.3V 47U	1	
C7592,93	ECJ1VC1H100C	50V 10P	2	
C7594	F2A0J470A012	6.3V 47U	1	
C7595	ECJ1VB1H103K	50V 0.01U	1	
C7596	ECJ1VC1H470J	50V 47P	1	
C7597	ECJ1VB1H103K	50V 0.01U	1	
C7598	ECJ1VC1H470J	50V 47P	1	
C7599	ECJ1XB1C104K	16V 0.1U	1	
C7600	ECJ1VC1H470J	50V 47P	1	
C7601	ECJ1XB1C104K	16V 0.1U	1	
C7602	ECJ1VB1H103K	50V 0.01U	1	
C7603	F2A0J470A012	6.3V 47U	1	
C7604	ECJ1XB1C104K	16V 0.1U	1	
C7605,06	ECJ1VC1H100C	50V 10P	2	
C7607	ECJ1VB1H103K	50V 0.01U	1	
C7608	F2A0J470A012	6.3V 47U	1	
C7609,10	ECJ1VC1H100C	50V 10P	2	
C7611-13	ECJ1VB1H103K	50V 0.01U	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7618	ECJ1XB1C104K	16V 0.1U	1	
C7620	ECJ1VB1H103K	50V 0.01U	1	
C7626	ECJ1VB1H103K	50V 0.01U	1	
C7633	VCEA0JBS101	6.3V 100U	1	F2A0J1010003
C7636	ECJ1VB0J105K	6.3V 1U	1	
C7637	ECJ1VB1H103K	50V 0.01U	1	
C7639	ECJ1VF1C104Z	16V 0.1U	1	
C7646	ECJ1VB0J105K	6.3V 1U	1	
C7650	ECJ1VB1H103K	50V 0.01U	1	
C7652	ECJ1XB1C104K	16V 0.1U	1	
D1501	MA165TA5	DIODE	1	MA2C16500E
D4001	MA165TA5	DIODE	1	MA2C16500E
D4005,06	MA3Z142D0RG	DIODE	2	
D7401	MA165TA5	DIODE	1	MA2C16500E
D7402	MA4300N-M	DIODE	1	MAZ4300NM
D7403	MA165TA5	DIODE	1	MA2C16500E
D7501	MAZ4240NMF	DIODE	1	
D7502	B0AAGM000003	DIODE	1	B0AAGM000007
D7504,05	MA2C18500E	DIODE	2	
D7506	MAZ4300NLF	DIODE	1	
D7507	1SS355	DIODE	1	B0ACCK000005
D7508	B0JDCE000002	DIODE	1	
D7512	B3AEA0000049	DIODE	1	
DP7501	A2BD00000074	FL DISPLAY TUBE	1	
DU7402	ENG47329G1Y	TV TUNERS	1	⚠
IC1502	C0DBAHG00013	IC	1	
IC1505	C0CBCDD00008	IC	1	
IC1506	C0CBCDD00002	IC	1	
IC1507	C0CBCDD00006	IC	1	
IC1508	C0DBEGD00002	IC	1	
IC1509	C0DBEFG00003	IC	1	
IC1510	C0DBEGG00003	IC	1	
IC3001	C1AB00001979	IC	1	
IC3002	C1AB00001486	IC	1	
IC3003	C9ZB00000377	IC	1	
IC4001	C1AB00001920	IC	1	
IC4005	TC7W04FTE12L	IC	1	C0JBAB000178
IC4006	K7AAAB000013	IC	1	
IC4007	TC7SET08F	IC	1	C0JBAA000284
IC4009	C0ABBB000216	IC	1	
IC4010	C0DBZJE00003	IC	1	
IC4011	C0CBCDD00002	IC	1	
IC4012	C0ABBB000118	IC	1	
IC4013	AN78L09M	IC	1	
IC7401	C0DBZJE00003	IC	1	
IC7402	C0DBCHD00002	IC	1	
IC7403	C0DBZHG00016	IC	1	
IC7501	C2CBJG000399	IC	1	
IC7502	C0HBB0000033	IC	1	
IC7503	C0EBJ0000110	IC	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC7504	C3EBJC000038	IC	1	
IC7505	C0EBE0000194	IC	1	
IC7506	NJM2904M	IC	1	C0ABBA000021
IC7508	C0EBE0000218	IC	1	
IP7501	ICP-N10T104	IC PROTECTOR	1	B1ZAZ0000035 ⚠
JK3001	K1U822B00003	JACK,AV4 IN/OUT	1	
JK7501	K1U415B00001	JACK,AV3	1	
K7401	ERJ3GEY0R00V	1/10W 0	1	
K7508	ERJ3GEY0R00V	1/10W 0	1	
K7510,11	ERJ3GEY0R00V	1/10W 0	2	
K7514,15	ERJ3GEY0R00V	1/10W 0	2	
L1501	G0A220G00018	COIL 22UH	1	
L4002	ELESE220KA	COIL 22UH	1	
L7401	G0A220G00018	COIL 22UH	1	
L7403	G0C2R2JA0019	COIL 2.2UH	1	
LB1501	J0JHC0000032	COIL	1	
LB1503	J0JHC0000032	COIL	1	
LB1504,05	J0JKB0000003	COIL	2	
LB3002-04	J0JHC0000032	COIL	3	
LB3005	J0JBC0000011	COIL	1	
LB3006	J0JGC0000020	COIL	1	
LB3007	J0JBC0000011	COIL	1	
LB3008	J0JGC0000020	COIL	1	
LB4001	J0JGC0000020	COIL	1	
LB7402	J0JHC0000032	COIL	1	
LB7404-10	J0JHC0000032	COIL	7	
LB7501,02	ERJ3GEY0R00V	1/10W 0	2	
LB7503	J0JKB0000037	COIL	1	
LB7504	J0JGC0000020	COIL	1	
LB7506,07	J0JGC0000020	COIL	2	
LB7508	VLP0175	COIL	1	J0JCC0000060
LB7509-11	J0JGC0000020	COIL	3	
LB7512-14	J0JCC0000103	COIL	3	
LB7515,16	J0JBC0000011	COIL	2	
P1501	K1KA08A00427	CONNECTOR(8P)	1	
P1502	K1KA23A00004	CONNECTOR(23P)	1	
P7402	K1KA88A00002	CONNECTOR(88P)	1	
P7503	K1KA03A00173	CONNECTOR(3P)	1	
P7504	K1KB12B00049	CONNECTOR(12P)	1	
PP7401	VJP3042G020W	CONNECTOR(20P)	1	K1KA20A00203
PP7402	VJP3042G018W	CONNECTOR(18P)	1	K1KA18A00041
PP7403	K1KA15A00064	CONNECTOR(15P)	1	
Q3006,07	2SB1218A	TRANSISTOR	2	
Q3009,10	2SB1218A	TRANSISTOR	2	
Q4004	2SB1218A	TRANSISTOR	1	
Q4006-09	2SD132800L	TRANSISTOR	4	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q7401	2SD1819AWL	TRANSISTOR	1	
Q7402	2SB1218A	TRANSISTOR	1	
Q7404-06	2SD0601A	TRANSISTOR	3	
Q7503	2SD1994B	TRANSISTOR	1	
Q7505	2SB0709ARL	TRANSISTOR	1	
Q7506	2SD1819AWL	TRANSISTOR	1	
Q7507	2SB0709ARL	TRANSISTOR	1	
Q7508	2SD1819AWL	TRANSISTOR	1	
Q7511	2SD0601A	TRANSISTOR	1	
Q7512	2SD0874A0L	TRANSISTOR	1	
Q7517	2SD0601A	TRANSISTOR	1	
Q7518	2SD1819AWL	TRANSISTOR	1	
Q7519	2SD0601A	TRANSISTOR	1	
QR3002,03	UN5212TX	TRANSISTOR	2	UNR521200L
QR4002-05	UN5211	TRANSISTOR	4	UNR5211
QR4012	UN5113TW	TRANSISTOR	1	
QR7401-03	UN5213TX	TRANSISTOR	3	UNR521300L
QR7404	UNR511400L	TRANSISTOR	1	
QR7405	UN5213TX	TRANSISTOR	1	UNR521300L
QR7501	UN5113TW	TRANSISTOR	1	
QR7502	UN5212TX	TRANSISTOR	1	UNR521200L
QR7503	UN5214TX	TRANSISTOR	1	UNR521400L
R1501	ERJ3GEYJ822V	1/10W 8.2K	1	D0GB822JA002
R1502	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R1503	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R1504	ERDS2FJ271	1/4W 270	1	
R1506	ERDS2FJ271	1/4W 270	1	
R1507	ERJ3RED330	1/16W 33	1	
R1508	ERJ3RBD201	1/16W 200	1	
R1509	ERJ3RBD102V	1/16W 1K	1	
R1510	ERJ3RED220	1/16W 22	1	
R1511	ERJ3RBD182V	1/16W 1.8K	1	
R1512	ERJ3RBD202	1/16W 2K	1	
R1515,16	ERDS2FJ271	1/4W 270	2	
R3026	ERJ3RED150V	1/16W 15	1	
R3027,28	ERJ3RBD471V	1/16W 470	2	
R3029	ERJ3RBD104	1/16W 100K	1	
R3030	ERJ3GEYJ105V	1/10W 1M	1	
R3037	ERJ3GEYJ102V	1/10W 1K	1	
R3038	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R3044	ERJ3GEYJ330V	1/10W 33	1	D0GB330JA002
R3045,46	ERJ3GEYJ221V	1/10W 220	2	
R3047	ERJ3RBD153	1/16W 15K	1	
R3048	ERJ3RBD182V	1/16W 1.8K	1	
R3049	ERJ3RED330	1/16W 33	1	
R3050	ERJ3RBD182V	1/16W 1.8K	1	
R3051	ERJ3RED330	1/16W 33	1	
R3052,53	ERJ3GEYJ102V	1/10W 1K	2	
R3054-59	ERJ6GEYJ750V	1/8W 75	6	
R3060	ERJ3EKF75R0	1/10W 75	1	
R4001	ERJ6GEYJ102V	1/8W 1K	1	
R4002	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4004	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R4005-07	ERJ3GEY0R00V	1/10W 0	3	
R4008,09	ERJ3GEYJ823V	1/10W 82K	2	D0GB823JA002
R4010,11	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R4012	ERJ3GEYJ333V	1/10W 33K	1	D0GB333JA002
R4013	ERJ6GEYJ102V	1/8W 1K	1	
R4014	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R4015	ERJ6GEYJ102V	1/8W 1K	1	
R4017	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R4018	ERJ3GEY0R00V	1/10W 0	1	
R4019,20	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R4021,22	ERJ3GEYJ823V	1/10W 82K	2	D0GB823JA002
R4023	ERJ6GEYJ102V	1/8W 1K	1	
R4046,47	D0HB752ZA002	1/10W 7.5K	2	
R4053	JAR0816P103D	1/16W 10K	1	D0HB103ZA002
R4055	D0HB153ZA002	1/10W 15K	1	
R4056	JAR0816P103D	1/16W 10K	1	D0HB103ZA002
R4057	D0HB153ZA002	1/10W 15K	1	
R4060,61	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R4066,67	JAR0816P103D	1/16W 10K	2	D0HB103ZA002
R4070	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R4071	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R4074	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R4076	ERJ3GEYJ821V	1/10W 820	1	
R4077	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R4078,79	ERJ3GEYJ272V	1/10W 2.7K	2	
R4080	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R4081	ERJ3GEYJ821V	1/10W 820	1	
R4087	ERJ3GEYJ102V	1/10W 1K	1	
R4088,89	ERJ3GEYJ272V	1/10W 2.7K	2	
R4090	ERJ3GEYJ221V	1/10W 220	1	
R4093	ERJ3GEYJ221V	1/10W 220	1	
R4099	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7401,02	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R7403	ERJ3GEYJ392V	1/10W 3.9K	1	
R7404	ERJ3GEYJ472V	1/10W 4.7K	1	
R7405	ERDS2FJ471	1/4W 470	1	
R7406	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7407	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7408	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7411	ERG2SJ471E	2W 470	1	
R7412	ERJ3GEYJ681V	1/10W 680	1	D0GB681JA002
R7413,14	ERJ3GEYJ271V	1/10W 270	2	
R7415,16	ERJ3GEYJ471V	1/10W 470	2	
R7417	ERG2SJ471E	2W 470	1	
R7418	ERJ3GEYJ221V	1/10W 220	1	
R7420	ERJ3GEYJ102V	1/10W 1K	1	
R7421,22	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R7427	ERJ3GEYJ102V	1/10W 1K	1	
R7428	ERJ3GEYJ333V	1/10W 33K	1	D0GB333JA002
R7429	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7430	ERJ3GEYJ102V	1/10W 1K	1	
R7431	ERJ3GEYJ333V	1/10W 33K	1	D0GB333JA002
R7432	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7433	ERJ3GEYJ102V	1/10W 1K	1	
R7434	ERJ3GEYJ333V	1/10W 33K	1	D0GB333JA002
R7435	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7438-42	ERJ3GEYJ220V	1/10W 22	5	
R7444	ERJ3GEYJ681V	1/10W 680	1	D0GB681JA002
R7505	ERJ3RBD273V	1/16W 27K	1	
R7507	ERDS2FJ331	1/4W 330	1	
R7508	ERDS2FJ5R6	1/4W 5.6	1	
R7510	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R7513	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R7514	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7516	ERJ3GEYJ102V	1/10W 1K	1	
R7517	ERJ3GEYJ104	1/10W 100K	1	
R7518	ERJ3GEYJ392V	1/10W 3.9K	1	
R7519	ERJ3GEYJ102V	1/10W 1K	1	
R7520	ERJ3GEYJ104	1/10W 100K	1	
R7521	ERJ3GEYG152	1/10W 1.5K	1	
R7522	ERJ3GEYG562V	1/10W 5.6K	1	
R7523	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7530	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7531	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7532	ERJ3GEYJ472V	1/10W 4.7K	1	
R7533	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7534-37	ERJ3GEYJ101	1/10W 100	4	D0GB101JA002
R7538	ERJ3GEYJ472V	1/10W 4.7K	1	
R7539	ERJ3GEYJ104	1/10W 100K	1	
R7540	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R7541	ERJ3GEY0R00V	1/10W 0	1	
R7542	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7543-45	ERJ3GEYJ101	1/10W 100	3	D0GB101JA002
R7546,47	ERJ3GEYJ472V	1/10W 4.7K	2	
R7548	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7549	ERJ3GEYJ511	1/10W 510	1	
R7550,51	ERJ3GEYJ202V	1/10W 2K	2	
R7552	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7553	ERJ3GEYJ472V	1/10W 4.7K	1	
R7554	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7556-59	ERJ3GEYJ101	1/10W 100	4	D0GB101JA002
R7561	ERDS2TJ392	1/4W 3.9K	1	
R7562-64	ERJ3GEYJ101	1/10W 100	3	D0GB101JA002
R7567	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7569	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7571-78	ERJ3GEYJ101	1/10W 100	8	D0GB101JA002
R7579,80	ERJ3GEYJ221V	1/10W 220	2	
R7581	ERJ3GEYG393V	1/10W 39K	1	
R7582	ERJ3GEYG433	1/10W 43K	1	
R7583,84	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R7585,86	ERJ3GEYJ223V	1/10W 22K	2	D0GB223JA002
R7588	ERJ3GEYJ472V	1/10W 4.7K	1	
R7589-91	ERJ3RBD822	1/10W 8.2K	3	
R7594	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7595,96	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R7597	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R7598	ERJ3GEYJ181V	1/10W 180	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7599	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7600,01	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R7602	ERJ3GEYJ821V	1/10W 820	1	
R7603	ERJ3GEYJ183V	1/10W 18K	1	D0GB183JA002
R7604-06	ERJ3EKF75R0	1/10W 75	3	
R7607	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7608	ERJ3GEYJ104	1/10W 100K	1	
R7610-13	ERJ3GEYJ101	1/10W 100	4	D0GB101JA002
R7617	ERDS2FJ750	1/4W 75	1	
R7619	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7620	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R7621	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7625-30	ERJ3GEYJ101	1/10W 100	6	D0GB101JA002
R7631,32	ERJ3GEYJ102V	1/10W 1K	2	
R7633	ERJ3RBD103V	1/16W 10K	1	
R7634	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7635-37	ERJ3GEYJ103V	1/10W 10K	3	D0GB103JA002
R7638	ERJ3GEYJ472V	1/10W 4.7K	1	
R7639	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R7640	ERJ3GEYJ225V	1/10W 2.2M	1	
R7641	ERJ3GEYJ273V	1/10W 27K	1	D0GB273JA002
R7642	ERJ3GEYJ224V	1/10W 220K	1	D0GB224JA002
R7643	ERJ3GEYJ104	1/10W 100K	1	
R7644	ERJ3GEYJ221V	1/10W 220	1	
R7645	ERJ3GEYJ104	1/10W 100K	1	
R7646,47	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R7671	ERJ3GEYJ682V	1/10W 6.8K	1	D0GB682JA002
R7672	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
S7501	K0F111B00044	SWITCH(POWER)	1	
T7501	ETS13TB119AP	TRANSFORMER	1	⚠
W500-05	ERJ3GEY0R00V	1/10W 0	6	
W507-23	ERJ3GEY0R00V	1/10W 0	17	
W529,30	ERJ3GEY0R00V	1/10W 0	2	
W534-37	ERJ3GEY0R00V	1/10W 0	4	
W538,39	ERJ6GEY0R00V	1/8W 0	2	
W540-42	ERJ3GEY0R00V	1/10W 0	3	
X7501	H0D100500016	CRYSTAL OSCILLATOR	1	
X7502	H0A327200026	OSCILLATOR	1	
ZJ3001	VJR0978	EARTH ANGLE	1	K9ZZ00000424
ZJ7401-04	VJR0978	EARTH ANGLE	4	K9ZZ00000424
ZJ7501	VJR0978	EARTH ANGLE	1	K9ZZ00000424
■	03	VEP07A71N		(VIF P.C.B.)
C0701	ECEA1HKS010	50V 1U	1	
C0702	ERJ3GEYJ102V	1/10W 1K	1	
C0703	ECEA1HKS010	50V 1U	1	
C0704	ECJ1VB1E683K	25V 0.0683U	1	
C0705	ECJ1VB1E104K	25V 0.1U	1	

C0705	EC31VB1E104K	25V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C0706	ECJ2XB1H333K	50V 0.033U	1	
C0707	ECEA1HKAR47B	50V 0.47U	1	
C0709,10	ECJ1VF1H103Z	50V 0.01U	2	
C0711	ECEA1CKS220	16V 22U	1	
C0712	ECJ1VF1C104Z	16V 0.1U	1	
C0713	ECEA0JKS101	6.3V 100U	1	
C0714	ECJ2XF1C105Z	16V 1U	1	
C0717	ECJ1VC1H180J	50V 18P	1	
C0721	ECUV1H470JCG	50V 47P	1	ECJ2VC1H470J
C0724	ECJ2VF1H103Z	50V 0.01U	1	
C0725	ECJ1VC1H030C	50V 3P	1	
C0727	ECJ1VC1H390J	50V 39P	1	
C0732	ECJ1VC1H101J	50V 100P	1	
IC0701	C1AB00001924	IC	1	
K0709	ERJ3GEY0R00V	1/10W 0	1	
L0701	ELJNAR22JF	COIL 22UH	1	
L0703	ELJNA3R3JF	COIL 3.3UH	1	
LB0701	J0JBC0000041	COIL	1	
PK0701	VJR0826E009W	CONNECTOR(9P)	1	K1MR09A00028
PP0701	VJP3589E004B	CONNECTOR(4P)	1	K1KA04B00135
Q0702	2SB0709ARL	TRANSISTOR	1	
R0702	ERJ3GEYJ104	1/10W 100K	1	
R0703	ERJ3GEYJ102V	1/10W 1K	1	
R0704	ERJ6GEYG105	1/8W 1M	1	
R0705	ERJ6GEYJ472V	1/8W 4.7K	1	
R0707	ERJ3GEYJ393V	1/10W 39K	1	D0GB393JA002
R0708	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R0709	ERJ3GEY0R00V	1/10W 0	1	
R0711	ERJ3GEYJ510	1/10W 51	1	
R0714	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R0715	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R0719	ERJ3GEYJ472V	1/10W 4.7K	1	
R0725	ERJ6GEYJ101V	1/8W 100	1	
R0726	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R0731	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R0732	ERJ3GEY0R00V	1/10W 0	1	
R0738	ERJ3GEY0R00V	1/10W 0	1	
R0740	ERJ3GEYJ271V	1/10W 270	1	
R0741	ERJ3GEYJ221V	1/10W 220	1	
R0742	ERJ6GEYJ471V	1/8W 470	1	
R0743	ERJ6GEYJ820V	1/8W 82	1	
R0747,48	ERJ3GEYJ271V	1/10W 270	2	
VR0701	EVNCYAA03B14	V.R.	1	
W1-W3	ERJ8GEY0R00V	1/4W 0	3	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W4	ERJ6GEY0R00V	1/8W 0	1	
W5,W6	ERJ8GEY0R00V	1/4W 0	2	
W7,W8	ERJ6GEY0R00V	1/8W 0	2	
W9	ERJ8GEY0R00V	1/4W 0	1	
W10	ERJ3GEY0R00V	1/10W 0	1	
W12	ERJ3GEY0R00V	1/10W 0	1	
W13,14	ERJ8GEY0R00V	1/4W 0	2	
W16	ERJ8GEY0R00V	1/4W 0	1	
X0701	VLF1430	FILTER	1	J0B3955A0001
X0702	VLF1431	FILTER	1	J0B4055A0001
X0704	VLF1497	FILTER	1	
■	04	VEP07A51A		(NICAM DECORDER P.C.B.)
C7301	ECJ1VF1C104Z	16V 0.1U	1	
C7302	ERJ3GEY0R00V	1/10W 0	1	
C7303	ECEA0JKS101	6.3V 100U	1	
C7305	ECEA0JKS101	6.3V 100U	1	
C7306	ECJ1VF1H103Z	50V 0.01U	1	
C7307,08	ECJ1VC1H100C	50V 10P	2	
C7309-11	ECJ1VC1H101J	50V 100P	3	
C7312,13	ECEA1CKS100	16V 10U	2	
C7314	ECJ1VF1C104Z	16V 0.1U	1	
C7317	ECEA1CKA470	16V 47U	1	
C7318	ECEA1CKS100	16V 10U	1	
C7323	ECJ1VC1H102J	50V 1000P	1	
C7324	ECJ1VF1C104Z	16V 0.1U	1	
C7329	ERJ3GEY0R00V	1/10W 0	1	
C7330	ERJ3GEYJ822V	1/10W 8.2K	1	D0GB822JA002
C7332	ECJ1VF1C104Z	16V 0.1U	1	
C7333	ECJ1XB1C104K	16V 0.1U	1	
C7334	ECEA1HKS2R2	50V 2.2U	1	
C7335	ECJ1VF1C104Z	16V 0.1U	1	
IC7301	TDA9874AH	IC	1	C1AB00001404
IC7302	PST7043-T	IC	1	C0EAH0000051
K7301-03	ERJ3GEY0R00V	1/10W 0	3	
K7305	ERJ3GEY0R00V	1/10W 0	1	
L7303	G0C1R0JA0019	COIL 1UH	1	
LB7301,02	J0JCC0000124	COIL	2	
LB7303	J0JCC0000080	COIL	1	
PK7301	VJR0777B007W	CONNECTOR(7P)	1	K1MM07B00002
PK7302	VJR0777B006W	CONNECTOR(6P)	1	K1MM06B00002
R7301	ERJ3GEY0R00V	1/10W 0	1	
R7304	ERJ3GEYJ101	1/10W 100	1	D0GB101JA002
R7307	ERJ3GEY0R00V	1/10W 0	1	
R7309	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R7311	ERJ3GEYJ221V	1/10W 220	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7312,13	ERJ3RBD221	1/10W 220	2	
R7314,15	ERJ3GEY0R00V	1/10W 0	2	
R7317	ERJ3GEY0R00V	1/10W 0	1	
R7319	ERJ3GEY0R00V	1/10W 0	1	
R7322	ERJ3GEY0R00V	1/10W 0	1	
R7324,25	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
W6,W7	ERJ3GEY0R00V	1/10W 0	2	
X7301	H0D245500016	CRYSTAL OSCILLATOR	1	
■	05	REP3682A		(SCART P.C.B.)
C3909	ECEA0JKS470	6.3V 47U	1	
C3910,11	ECA1CAK100XB	16V 10U	2	
C3914-17	ECA1HAK010XI	50V 1U	4	
C3918,19	ECA1CAK100XB	16V 10U	2	
C3920	ECJ1XB1C104K	16V 0.1U	1	
C3921	ECA0JAK331X	6.3V 330U	1	
C3922	ECJ1VB1H103K	50V 0.01U	1	
C3923	ECJ1XB1C104K	16V 0.1U	1	
C3924	ECA0JAK331X	6.3V 330U	1	
C3925	ECJ1VB1H103K	50V 0.01U	1	
C3928,29	ECA1HAK010XI	50V 1U	2	
C3930	ECJ1VB1H103K	50V 0.01U	1	
C3931,32	ECA1HAK010XI	50V 1U	2	
C3933	ECA1CAK101XB	16V 100U	1	
C3934	ECJ1VB1H103K	50V 0.01U	1	
C3935	ECA1CAK101XB	16V 100U	1	
C3938	ECJ1VF1C104Z	16V 0.1U	1	
C3939	ECJ1VB1H103K	50V 0.01U	1	
C3951,52	ECJ1VC1H470J	50V 47P	2	
C3953,54	ECJ1VC1H471J	50V 470P	2	
C3955,56	ECJ1VC1H101J	50V 100P	2	
C3957,58	ECJ1VC1H471J	50V 470P	2	
C3959,60	ECJ1VC1H470J	50V 47P	2	
C3961,62	ECJ1VC1H101J	50V 100P	2	
D3901	MA165TA5	DIODE	1	MA2C16500E
D3903	MA3Z142D0RG	DIODE	1	
IC3901	C1AB00001776	IC	1	
JK3901	K2HA306A0025	JACK,VIDEO OUT	1	
JK3904,05	K1FB121A0003	JACK,AV1/2	2	
LB3907,08	J0JGC0000020	COIL	2	
LB3911-13	J0JGC0000020	COIL	3	
LB3922,23	J0JGC0000020	COIL	2	
LB3925	J0JGC0000020	COIL	1	
PS3901	VJS3042F020W	CONNECTOR(20P)	1	K1KB20B00027
PS3902	VJS3042F018W	CONNECTOR(18P)	1	K1KB18B00012
PS3903	K1KB15B00013	CONNECTOR(15P)	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q3901	2SD1819AWL	TRANSISTOR	1	
Q3905	2SD132800L	TRANSISTOR	1	
Q3906	2SB710AQRSTX	TRANSISTOR	1	2SB0710AWL
Q3908	2SB1218A	TRANSISTOR	1	
Q3909,10	2SD132800L	TRANSISTOR	2	
QR3908	UN5212TX	TRANSISTOR	1	UNR521200L
QR3909	UN5211	TRANSISTOR	1	UNR5211
QR3913	UN5212TX	TRANSISTOR	1	UNR521200L
R3901-03	ERJ3RED750V	1/16W 75	3	
R3904	ERJ3GEYJ330V	1/10W 33	1	D0GB330JA002
R3905	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R3906	ERJ3GEYJ102V	1/10W 1K	1	
R3907	ERJ3GEYJ273V	1/10W 27K	1	D0GB273JA002
R3908,09	ERJ6GEYJ471V	1/8W 470	2	
R3910	ERJ3RBD151	1/16W 150	1	
R3911,12	ERJ3GEYJ222V	1/10W 2.2K	2	D0GB222JA002
R3913	ERJ3EKF1800	1/16W 180	1	
R3914	ERJ3RBD151	1/16W 150	1	
R3915	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R3916	ERJ3GEYD153V	1/10W 15K	1	D0HB153ZA002
R3917	ERJ3GEYJ223V	1/10W 22K	1	D0GB223JA002
R3919	ERJ3RBD151	1/16W 150	1	
R3921	ERJ6ENF75R0	1/8W 75	1	
R3922,23	ERJ6GEYJ471V	1/8W 470	2	
R3924	ERDS2FJ471	1/4W 470	1	
R3925-28	ERJ6ENF75R0	1/8W 75	4	
R3929,30	ERJ6GEYJ471V	1/8W 470	2	
R3931-33	ERJ3RED750V	1/16W 75	3	
R3934,35	ERJ6ENF75R0	1/8W 75	2	
R3962	ERJ3GEYJ103V	1/10W 10K	1	D0GB103JA002
R3967	ERJ3GEYJ152V	1/10W 1.5K	1	
R3968	ERJ3GEYJ680	1/10W 68	1	ERJ3GEYJ680V
R3969	ERJ3GEYJ332V	1/10W 3.3K	1	D0GB332JA002
R3972,73	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R3975,76	ERJ3GEYJ101	1/10W 100	2	D0GB101JA002
R3977,78	ERJ3GEYJ103V	1/10W 10K	2	D0GB103JA002
R3979,80	ERJ6GEYJ471V	1/8W 470	2	
R3981,82	ERJ3GEYJ821V	1/10W 820	2	
R3983,84	ERJ3GEYJ104	1/10W 100K	2	
R3985	ERJ3RBD472V	1/16W 4.7K	1	
R3986	ERJ3RBD122V	1/16W 1.2K	1	
R3987	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
R3988,89	ERJ3GEYJ102V	1/10W 1K	2	
R3990,91	ERJ3GEYJ473V	1/10W 47K	2	D0GB473JA002
R3992,93	ERJ3GEYJ102V	1/10W 1K	2	
R3994	ERJ3GEYJ473V	1/10W 47K	1	D0GB473JA002
ZA3901-04	VMC1450	EARTH PLATE	4	
■	06	RFKBE85HEP		(DIGITAL P.C.B.)

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3401	ECJ1VB0J105K	6.3V 1U	1	
C3402	ECJ0EC1H220J	50V 22P	1	
C3403	ECJ0EB1A104K	10V 0.1U	1	
C3404,05	ECJ0EC1H220J	50V 22P	2	
C3406	ECJ0EB1A104K	10V 0.1U	1	
C3407,08	ECJ0EC1H100D	50V 10P	2	
C3410	ECJ0EB1C103K	16V 0.01U	1	
C3411	ECST0JX476R	6.3V 47U	1	
C3413	ECJ0EB1A104K	10V 0.1U	1	
C3417-19	ECJ1VB0J105K	6.3V 1U	3	
C3420	ECJ0EB1C103K	16V 0.01U	1	
C3421	ECJ0EB1A104K	10V 0.1U	1	
C3422	ECJ0EB1C103K	16V 0.01U	1	
C3423-28	ECJ0EB1A104K	10V 0.1U	6	
C3429,30	ECJ2FB0J106K	6.3V 10U	2	
C3431	ECJ0EB1A104K	10V 0.1U	1	
C3432	ECJ1VB0J105K	6.3V 1U	1	
C3433	ECJ0EB1A104K	10V 0.1U	1	
C3435,36	ECJ0EB1A104K	10V 0.1U	2	
C3440	EEEHB0J101P	6.3V 100P	1	
C3441	ECJ0EB1A104K	10V 0.1U	1	
C3502	ECJ0EB1C103K	16V 0.01U	1	
C4411	ECST1AY106R	10V 10U	1	
C4412	EEEHB0J470R	6.3V 47P	1	
C4413	EEEHB0J101P	6.3V 100P	1	
C4414,15	ECJ0EF1C104Z	16V 0.1U	2	
C4416	F2H0J331A016	6.3V 330U	1	
C4417	ECJ0EF1C104Z	16V 0.1U	1	
C4418	EEEHB0J101P	6.3V 100P	1	
C4421-26	ECJ0EB1E102K	25V 1000P	6	
C4427	EEEHB0J470R	6.3V 47P	1	
C4428	ECJ0EF1C104Z	16V 0.1U	1	
C4429	ECJ0EB1A104K	10V 0.1U	1	
C4430	ECST1AY106R	10V 10U	1	
C4431,32	ECJ0EF1C104Z	16V 0.1U	2	
C4433	EEEHB1C100R	16V 10P	1	
C4434	ECJ0EF1C104Z	16V 0.1U	1	
C6001	ECJ0EF1C104Z	16V 0.1U	1	
C6002	ECJ2FB0J106K	6.3V 10U	1	
C6003	ECJ0EB1C103K	16V 0.01U	1	
C9001,02	ECJ0EC1H470J	50V 47P	2	
C50001	ECJ1VB0J105K	6.3V 1U	1	
C50002	ECJ3YB0J226M	6.3V 22U	1	
C50004,05	ECJ0EB1A104K	10V 0.1U	2	
D3401,02	MA3S132E0L	DIODE	2	
D4401	MA3Z142K0LG	DIODE	1	
FL3401,02	F1H0J4740004	FILTER	2	
FL3404	F1H0J4740004	FILTER	1	
FL3406,07	F1H0J4740004	FILTER	2	
FL3409-12	F1H0J4740004	FILTER	4	
FL3414-26	F1H0J4740004	FILTER	13	
FL3429	F1H0J4740004	FILTER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
FL3431	F1H0J4740004	FILTER	1	
FL3433-35	F1H0J4740004	FILTER	3	
FL3501,02	F1H0J4740004	FILTER	2	
FL3505-16	F1H0J4740004	FILTER	12	
FL4403-05	F1H0J4740004	FILTER	3	
FL6001-18	F1H0J4740004	FILTER	18	
FL6020-23	F1H0J4740004	FILTER	4	
FL6701-03	F1H0J4740004	FILTER	3	
FL50001-06	F1H0J4740004	FILTER	6	
FP3501	K1MN40A00022	CONNECTOR(40P)	1	
IC3401	AN13310B-VB	IC	1	
IC3402	C3ABMG000092	IC	1	
IC3404	MN85573R	IC	1	
IC3406	C1DB00001110	IC	1	
IC3408	C3ABPJ000052	IC	1	
IC3409	C0DBZGC00066	IC	1	
IC3501	MN88302R	IC	1	
IC3502	C3ABRG000036	IC	1	
IC4404	C0FBBK000035	IC	1	
IC4405	C0ABBB000105	IC	1	
IC4406	C0FBAK000008	IC	1	
IC4407	C0JBAA000257	IC	1	
IC4408	C0JBAD000107	IC	1	
IC4409	C0CBCBD00002	IC	1	
IC6001	MN2DS0011-HR	IC	1	
IC6002	C0EBE0000130	IC	1	
IC6003	C3CBLD000091	IC	1	
IC6004	74LVC244APWL	IC	1	C0JBAZ001466
IC6005,06	C3ABRG000036	IC	2	
IC6701	C1ZBZ0002433	IC	1	
IC6703	RFKBE85HEP	DIGITAL P.C.B.	1	
IC50001,02	C3ABPG000067	IC	2	
LB3404,05	J0JHC0000032	COIL	2	
LB3408,09	J0JHC0000032	COIL	2	
LB4401-04	J0JGC0000020	COIL	4	
LB4405	J0JHC0000032	COIL	1	
LB6001-04	J0JHC0000032	COIL	4	
LB9001,02	J0JHC0000032	COIL	2	
LB9006,07	J0JCC0000103	COIL	2	
LB9008	J0JHC0000045	COIL	1	
LB9009	J0JHC0000046	COIL	1	
LB50001-05	J0JHC0000032	COIL	5	
P6002	K1KA06A00394	CONNECTOR(6P)	1	
P9001	K1KB88A00002	CONNECTOR(88P)	1	
Q6001,02	B1ABCF000114	TRANSISTOR	2	
Q6701-05	B1ABCF000114	TRANSISTOR	5	
Q50001-05	B1ADCF000081	TRANSISTOR	5	
QR3502,03	UN5213TX	TRANSISTOR	2	UNR521300L

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3405	ERJ2GEJ103	1/16W 10K	1	
R3407	ERJ2GE0R00X	1/16W 0	1	
R3409	ERJ2GE0R00X	1/16W 0	1	
R3410,11	ERJ2GEJ101	1/16W 100	2	
R3412	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3414	ERJ2GEJ330X	1/16W 33	1	
R3416	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R3417,18	ERJ2GEJ103	1/16W 10K	2	
R3419-23	ERJ2GEJ220X	1/16W 22	5	ERJ2RMJ220X
R3427	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3430	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3432-34	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3436	ERJ2GEJ470	1/16W 47	1	
R3438	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3440	ERJ2GEJ103	1/16W 10K	1	
R3442	ERJ2GEJ103	1/16W 10K	1	
R3443-45	ERJ2GE0R00X	1/16W 0	3	
R3447	ERJ2RHD682	1/16W 6.8K	1	
R3448	ERJ2GEJ562X	1/16W 5.6K	1	
R3449	ERJ2RHD682	1/16W 6.8K	1	
R3450	ERJ2GEJ104	1/16W 100K	1	
R3451	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3452	ERJ2GE0R00X	1/16W 0	1	
R3453	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3454	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R3455	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3456	ERJ2GEJ470	1/16W 47	1	
R3457	ERJ2GE0R00X	1/16W 0	1	
R3458	ERJ2GEJ220X	1/16W 22	1	ERJ2RMJ220X
R3460-62	ERJ2GEJ470	1/16W 47	3	
R3463,64	ERJ2GE0R00X	1/16W 0	2	
R3472,73	ERJ2GEJ220X	1/16W 22	2	ERJ2RMJ220X
R3476	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R3501-03	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3509	ERJ2GEJ330X	1/16W 33	1	
R3510,11	ERJ2GEJ103	1/16W 10K	2	
R3514	ERJ2GEJ105	1/16W 1M	1	
R3519-22	ERJ2GEJ330X	1/16W 33	4	
R3523	ERJ2GEJ103	1/16W 10K	1	
R3524	ERJ2GEJ330X	1/16W 33	1	
R3525	ERJ2GEJ103	1/16W 10K	1	
R3526-28	ERJ2GEJ220X	1/16W 22	3	ERJ2RMJ220X
R3530	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R3531	ERJ2GEJ820X	1/16W 82	1	
R3532	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R3533	ERJ2GEJ101	1/16W 100	1	
R3535	ERJ2GEJ820X	1/16W 82	1	
R3537	ERJ2GEJ562X	1/16W 5.6K	1	
R3541,42	ERJ2GEJ103	1/16W 10K	2	
R3543	ERJ2GE0R00X	1/16W 0	1	
R3548	ERJ2GEJ330X	1/16W 33	1	
R4418-27	ERJ2GE0R00X	1/16W 0	10	
R4429	JAR0816P562D	1/16W 5.6K	1	D0HB562ZA002

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4430,31	JAR0816P103D	1/16W 10K	2	D0HB103ZA002
R4432	JAR0816P562D	1/16W 5.6K	1	D0HB562ZA002
R4434,35	ERJ3GEY0R00V	1/10W 0	2	
R4436	ERJ2GEJ221	1/16W 220	1	
R4437-39	ERJ2GE0R00X	1/16W 0	3	
R4450-52	ERJ2GE0R00X	1/16W 0	3	
R4453	ERJ2GEJ562X	1/16W 5.6K	1	
R4454-57	ERJ2GE0R00X	1/16W 0	4	
R6001	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6002	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6003	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R6004	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6005	ERJ2GEJ103	1/16W 10K	1	
R6006	ERJ2GEJ153	1/16W 15K	1	
R6007	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6008	ERJ2GEJ103	1/16W 10K	1	
R6009,10	ERJ2GEJ330X	1/16W 33	2	
R6011	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6013	ERJ2GEJ103	1/16W 10K	1	
R6014-17	ERJ2GEJ104	1/16W 100K	4	
R6018,19	ERJ2GEJ220X	1/16W 22	2	ERJ2RMJ220X
R6020	ERJ2GE0R00X	1/16W 0	1	
R6021,22	ERJ2GEJ470	1/16W 47	2	
R6023	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6024	ERJ2GEJ103	1/16W 10K	1	
R6027	ERJ2GE0R00X	1/16W 0	1	
R6028	ERJ2GEJ470	1/16W 47	1	
R6029	ERJ2GEJ103	1/16W 10K	1	
R6031	ERJ2GEJ470	1/16W 47	1	
R6035	ERJ2GEJ470	1/16W 47	1	
R6036	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6037	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6039	ERJ2GEJ103	1/16W 10K	1	
R6040	ERJ2GEJ332X	1/16W 3.3K	1	ERJ2RMJ332X
R6701	ERJ2GEJ104	1/16W 100K	1	
R6703	ERJ2GEJ103	1/16W 10K	1	
R6706,07	ERJ2GEJ470	1/16W 47	2	
R6709,10	ERJ2GEJ332X	1/16W 3.3K	2	ERJ2RMJ332X
R6711,12	ERJ2GEJ470	1/16W 47	2	
R6713	ERJ2GEJ103	1/16W 10K	1	
R6714	ERJ2GEJ333X	1/16W 33K	1	ERJ2RMJ333X
R6715	ERJ2GEJ470	1/16W 47	1	
R6716,17	ERJ2GEJ333X	1/16W 33K	2	ERJ2RMJ333X
R6718	ERJ2GE0R00X	1/16W 0	1	
R6720-28	ERJ2GEJ470	1/16W 47	9	
R6729	ERJ2GEJ104	1/16W 100K	1	
R6730	ERJ2GEJ103	1/16W 10K	1	
R6731	ERJ2GEJ222X	1/16W 22K	1	ERJ2RMJ222X
R6733	ERJ2GEJ103	1/16W 10K	1	
R6735	ERJ2GEJ472X	1/16W 4.7K	1	ERJ2RMJ472X
R6737,38	ERJ2GEJ470	1/16W 47	2	
R6739	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R6750,51	ERJ2GEJ470	1/16W 47	2	
R6752	ERJ2GEJ101	1/16W 100	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6753-56	ERJ2GEJ470	1/16W 47	4	
R50001	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R50002	ERJ2GE0R00X	1/16W 0	1	
R50003	ERJ2GEJ390X	1/16W 39	1	ERJ2RMJ390X
R50004	ERJ2GE0R00X	1/16W 0	1	
R50005	ERJ2GEJ330X	1/16W 33	1	
R50006,07	ERJ2GEJ470	1/16W 47	2	
R50008	ERJ2GEJ100	1/16W 10	1	
R50009	ERJ2GEJ103	1/16W 10K	1	
R50010	ERJ2RHD242	1/16W 2.4K	1	
R50011	ERJ2RHD223X	1/16W 22K	1	
R50012,13	ERJ2GE0R00X	1/16W 0	2	
R50015	ERJ2RHD333	1/16W 33K	1	
R50016	ERJ2RHD152	1/16W 1.5K	1	
R50017	ERJ2RHD153	1/16W 15K	1	
R50018	ERJ3RBD151	1/16W 150	1	
R50019	ERJ2GEJ330X	1/16W 33	1	
R50020	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50021	ERJ3RED820	1/16W 82	1	
R50022	ERJ2GEJ330X	1/16W 33	1	
R50023	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50024	ERJ3RED820	1/16W 82	1	
R50025	ERJ2GEJ330X	1/16W 33	1	
R50026	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50027	ERJ3RBD151	1/16W 150	1	
R50028	ERJ2GEJ330X	1/16W 33	1	
R50029	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50030	ERJ3RED220	1/16W 22	1	
R50031	ERJ3RBD151	1/16W 150	1	
R50032	ERJ2GEJ330X	1/16W 33	1	
R50033	ERJ2GEJ102X	1/16W 1K	1	ERJ2RMJ102X
R50034,35	ERJ3RED160V	1/16W 16	2	
R50036-38	ERJ2GEJ470	1/16W 47	3	
R50039	ERJ2GEJ820X	1/16W 82	1	
RX3401-17	D1H82204A024	RESISTOR-RESISTOR	17	
RX3421,22	D1H82204A024	RESISTOR-RESISTOR	2	
RX3433-44	D1H82204A024	RESISTOR-RESISTOR	12	
RX3501-04	D1H82204A024	RESISTOR-RESISTOR	4	
RX3505-08	D1H83304A024	RESISTOR-RESISTOR	4	
RX3515-19	D1H83304A024	RESISTOR-RESISTOR	5	
RX3520-26	D1H82204A024	RESISTOR-RESISTOR	7	
RX3527-32	D1H81034A024	RESISTOR-RESISTOR	6	
RX3538-40	D1H84734A024	RESISTOR-RESISTOR	3	
RX6001	D1H81034A024	RESISTOR-RESISTOR	1	
RX6002-04	D1H84704A024	RESISTOR-RESISTOR	3	
RX6005,06	D1H83304A024	RESISTOR-RESISTOR	2	
RX6007	D1H84704A024	RESISTOR-RESISTOR	1	
RX6009-26	D1H83304A024	RESISTOR-RESISTOR	18	
RX6027-32	D1H84704A024	RESISTOR-RESISTOR	6	
RX6033,34	D1H83324A013	RESISTOR-RESISTOR	2	
RX6035,36	D1H83334A024	RESISTOR-RESISTOR	2	
RX6037	D1H81034A024	RESISTOR-RESISTOR	1	
RX6038	D1H83304A024	RESISTOR-RESISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
RX6039-42	D1H84704A024	RESISTOR-RESISTOR	4	
RX6043	D1H81034A024	RESISTOR-RESISTOR	1	
RX6044	D1H83334A024	RESISTOR-RESISTOR	1	
RX6701,02	D1H81034A024	RESISTOR-RESISTOR	2	
RX6703-06	D1H84704A024	RESISTOR-RESISTOR	4	
RX6708	D1H84704A024	RESISTOR-RESISTOR	1	
RX6711-13	D1H83324A013	RESISTOR-RESISTOR	3	
RX6716	D1H84704A024	RESISTOR-RESISTOR	1	
RX6717-19	D1H83334A024	RESISTOR-RESISTOR	3	
RX6720-23	D1H83324A013	RESISTOR-RESISTOR	4	
RX6724	D1H84704A024	RESISTOR-RESISTOR	1	
RX6726-28	D1H84704A024	RESISTOR-RESISTOR	3	
RX6729,30	D1H81034A024	RESISTOR-RESISTOR	2	
RX6731-34	D1H84704A024	RESISTOR-RESISTOR	4	
RX6735	D1H82224A024	RESISTOR-RESISTOR	1	
RX6736	D1H81034A024	RESISTOR-RESISTOR	1	
RX6737	D1H84724A024	RESISTOR-RESISTOR	1	
RX6738	D1H83334A024	RESISTOR-RESISTOR	1	
RX50001-16	D1H84704A024	RESISTOR-RESISTOR	16	
X3401	H0J270500069	CRYSTAL OSCILLATOR	1	
X3501	H2D330500001	CRYSTAL OSCILLATOR	1	
■	07	ETXMM507E4F		(POWER SUPPLY P.C.B.)
C001	ECKENA102ME	1000P	1	⚠
C002	ECQU2A104ML	0.1U	1	⚠
C003	ECQU2A334ML	0.33	1	⚠
C006	ECKENA102ME	1000P	1	⚠
C008	KH102M	1000P	1	⚠
C009	KMM2W470JZ	450V 47	1	
C010	RR3DD331K	2KV 330P	1	
C011	ECKENA102ME	1000P	1	⚠
C012	MBC471J5	50V 470P	1	
C013	KY1H220	50V 22	1	
C014	MBB224K2	25V 0.22	1	
C015	MBB224K5	25V 0.22	1	
C101	KBR221K2E	250V 220P	1	
C102	ECJ2XB1H102K	50V 1000P	1	ECJ2VB1H102K
C103	KBR221K2E	250V 220P	1	
C104	ECJ2XB1H102K	50V 1000P	1	ECJ2VB1H102K
C105	KY1E471	25V 470	1	
C106	KY1A222	10V 2200	1	
C107	MBC102J5	50V 1000P	1	
C109	MBB104K2	25V 0.1U	1	
C110	MBB683K5	55V 0.068	1	
C111	MBB105K1	16V 1U	1	
C112	KY1A471	10V 470U	1	
C113	MBB105K1	16V 1U	1	
C115	MBB224K5	25V 0.22	1	
C117	KY1E221	25V 220U	1	
C118	KMG1H100	50V 10	1	
C119	ECA1AHG102	10V 1000U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C120	KY1E681L	25V 680	1	
C122	MBB104K2	25V 0.1U	1	
C123	KY1C471	16V 470		
C124	KY1E221	25V 220U	1	
C125	ECA1AHG102	10V 1000U	1	
C127	ECJ2XB1H333K	50V 0.033U	1	
C128	KY1A471	10V 470U	1	
C129	MBB105K1	16V 1U	1	
C130	MBC102J5	50V 1000P	1	
C131	MBB105K1	16V 1U	1	
C141	MBB104K2	25V 0.1U	1	
C142	MBB105K1	16V 1U	1	
D001-04	GPP20J	DIODE	4	⚠
D005	ST3D200	CLAMPER	1	
D006	AL01Z	DIODE	1	B0HAMM000077
D007	MA2J72800L	DIODE	1	MA2J728
D101	RK49	DIODE	1	B0JAPK000005
D102	FCQ20A6	DIODE	1	
D103	BRF1560	DIODE	1	
D104-07	MA165TA5	DIODE	4	MA2C16500E
D108	FCH05A10	DIODE	1	
D111-13	MA165TA5	DIODE	3	MA2C16500E
D114	GPP20J	DIODE	1	
D120	MA2J11100L	DIODE	1	
F001	19181-2A	FUSE	1	⚠
F101	SBM40	FUSE	1	⚠
F102	SBM32	FUSE	1	⚠
F103	SBM25	FUSE	1	⚠
IC001	STRG6353	IC	1	⚠
IC101	TL431AI	IC	1	
IC102	LM2904DR	IC	1	
IC103	SI3010KM	IC	1	
IC105	BD4746G	IC	1	
IC106	SI3120J	IC	1	
IP101	ICPN10	IC PROTECTOR	1	⚠
L002	ELF15N005A	COIL	1	⚠
L004	ELESN150KA	COIL	1	
L005	EXCELSA35	COIL	1	
L010,11	EXCELSA35	COIL	2	
L101	EXCELDR35	COIL	1	
L102	LHLZ1R5M	COIL	1	
L103	EXCELDR35	COIL	1	
L104	LHLZ6R8M	COIL	1	
L105	EXCELSA35	COIL	1	
L106	LH8TB100K	COIL	1	
L107	EXCELSA35	COIL	1	
L108	EXCELDR35	COIL	1	
L109	LHLZ4R7M	COIL	1	

[illegible]	[illegible]	[illegible]	[illegible]	

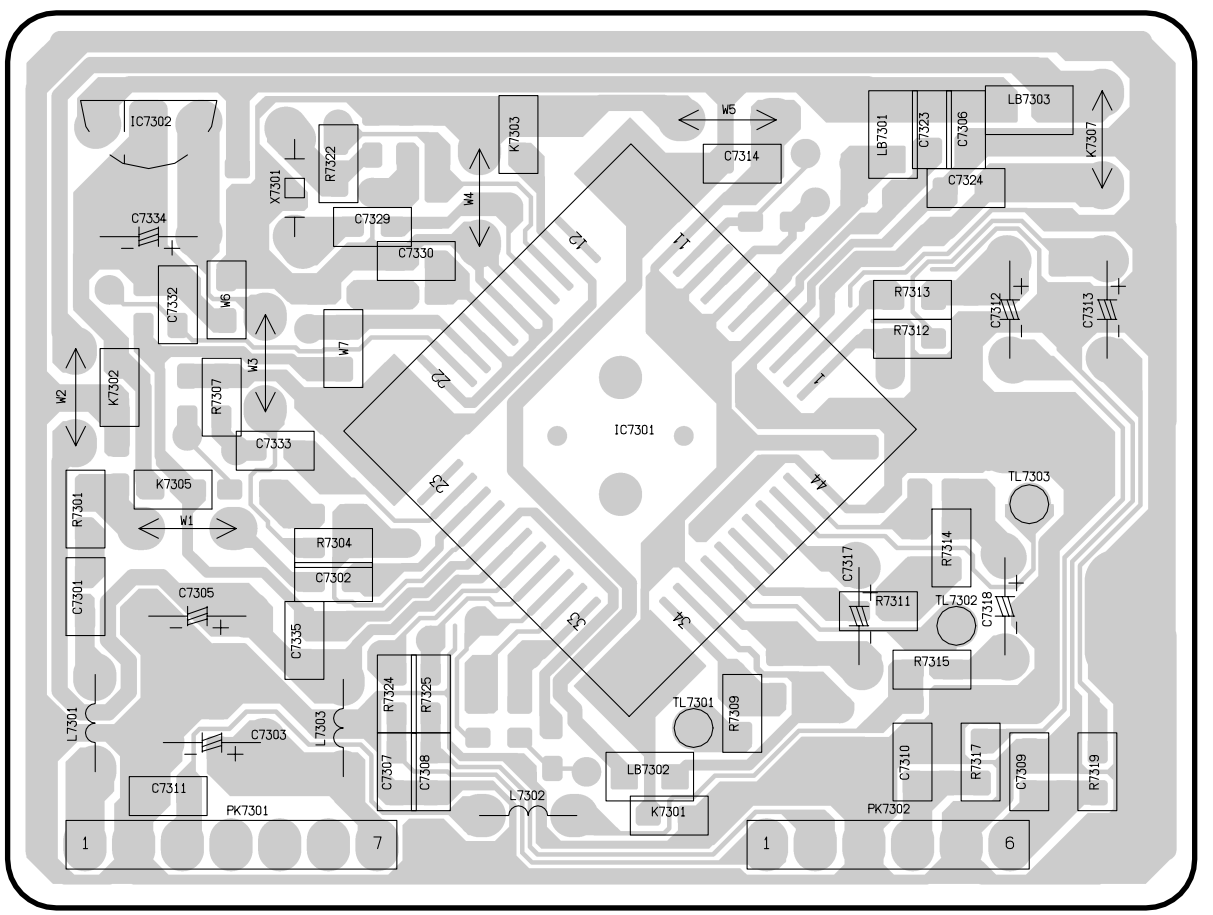
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
P001	K2AA2H000007	AC INLET	1	⚠
PC001	PS2571L1	PHOTO COUPLER	1	⚠
PS101	B4B-EH-A	CONNECTOR(4P)	1	
PS102	TWGP23XA1	CONNECTOR(23P)	1	
Q101	2SD602A-R	TRANSISTOR	1	2SD0602AR
Q102	2SB710AQRSTX	TRANSISTOR	1	2SB0710AWL
Q103	2SB0709ARL	TRANSISTOR	1	
Q104	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q105	2SK3366	TRANSISTOR	1	
Q106,07	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q110	2SB710AQRSTX	TRANSISTOR	1	2SB0710AWL
Q111	2SD601A-R	TRANSISTOR	1	2SD0601AR
Q113	2SK3366	TRANSISTOR	1	
Q114	2SB710AQRSTX	TRANSISTOR	1	2SB0710AWL
Q115,16	2SD601A-R	TRANSISTOR	2	2SD0601AR
Q117	2SB0709ARL	TRANSISTOR	1	
Q118	2SD602A-R	TRANSISTOR	1	2SD0602AR
Q119	2SB710AQRSTX	TRANSISTOR	1	2SB0710AWL
R001	ERDS1FJ105	0.5W 1M	1	
R002	CR10J681	0.1W 680	1	
R003	ERX1SZGR47	1W 0.47	1	
R005	ERDS2FJ224	1/4W 220K	1	
R006	ER0S2TKF2373	0.25W 237K	1	
R007	CR10F1272	0.1W 12.7K	1	
R008	CR10J562	0.1W 5.6K	1	
R009	ERDS2FJ224	1/4W 220K	1	
R010	ER0S2TKF2373	0.25W 237K	1	
R101	CR10J472	0.1W 4.7K	1	
R102,03	CR10J100	0.1W 10	2	
R104	CR10J471	0.1W 470	1	
R105	CR10J472	0.1W 4.7K	1	
R106	ERJ6GEYJ101V	1/8W 100	1	
R107	CR10J224	0.1W 220K	1	
R108	CR10J472	0.1W 4.7K	1	
R109	CR10J222	0.1W 2.2K	1	
R110	CR10J103	0.1W 10K	1	
R111	CR10J752	0.1W 7.5K	1	
R112	CR10J102	0.1W 1K	1	
R113	CR10J471	0.1W 470	1	
R114	ERJ6GEYJ101V	1/8W 100	1	
R115	CR10J332	0.1W 3.3K	1	
R116	CR10J102	0.1W 1K	1	
R117	ERJ6GEYJ101V	1/8W 100	1	
R120	CR10F2210	0.1W 221	1	
R121	CR10F1001	0.1W 1K	1	
R122	CR10J183	0.1W 18K	1	
R124	CR10F1470	0.1W 147	1	
R125	CR10J103	0.1W 10K	1	
R126	CR10F1002	0.1W 10K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R127	CR10F3321	0.1W 3.32K	1	
R128	CR10F1211	0.1W 1.21K	1	
R130	CR10J822	0.1W 8.2K	1	
R131	CR10J103	0.1W 10K	1	
R132	CR10J472	0.1W 4.7K	1	
R136,37	CR10J152	0.1W 1.5K	2	
R139	CR10J123	0.1W 12K	1	
R143	ERDS2FJ822	1/4W 8.2K	1	
R144	CR10J222	0.1W 2.2K	1	
R145	CR10F6980	0.1W 698	1	
R153	CR10F1002	0.1W 10K	1	
R154	CR10F3321	0.1W 3.32K	1	
R157	CR10F2210	0.1W 221	1	
R158	CR10J682	0.1W 6.8K	1	
R159	CR10J103	0.1W 10K	1	
R160	CR10J332	0.1W 3.3K	1	
R163	CR10J183	0.1W 18K	1	
R164	CR10J222	0.1W 2.2K	1	
R165,66	CR10J103	0.1W 10K	2	
R167,68	CR10J152	0.1W 1.5K	2	
R169	CR10J102	0.1W 1K	1	
R170	CR10J752	0.1W 7.5K	1	
R171	CR10J472	0.1W 4.7K	1	
R172	ERJ6GEYJ101V	1/8W 100	1	
R173	CR10J224	0.1W 220K	1	
R174	CR10J471	0.1W 470	1	
R175	CR10J472	0.1W 4.7K	1	
R176	CR10F1002	0.1W 10K	1	
R177	CR10F2432	0.1W 24.3K	1	
R178	CR10J472	0.1W 4.7K	1	
R179	CR10J223	0.1W 22K	1	
R195	CR10J103	0.1W 10K	1	
T001	ETB28BF1U6A	TRANSFORMER	1	⚠
VR101	ER0S2TKF1580	0.25W 158	1	
Z001	ERZVGAD471	VARISTOR	1	⚠
ZD002	MA4068N	DIODE	1	
ZD004	MA8051	DIODE	1	
ZD101	MA4039M	DIODE	1	MAZ40390M
ZD102	MAZ8051	DIODE	1	
ZD103	MA8051	DIODE	1	
ZD104	MA8082	DIODE	1	
ZD105	MAZ8051	DIODE	1	
ZD106	MA8051	DIODE	1	
ZD107	RD6.2ESB	DIODE	1	
■	08	REP3713B		(FRONT(R) P.C.B.)
C7801	ECJ1VF1A105Z	10V 1U	1	

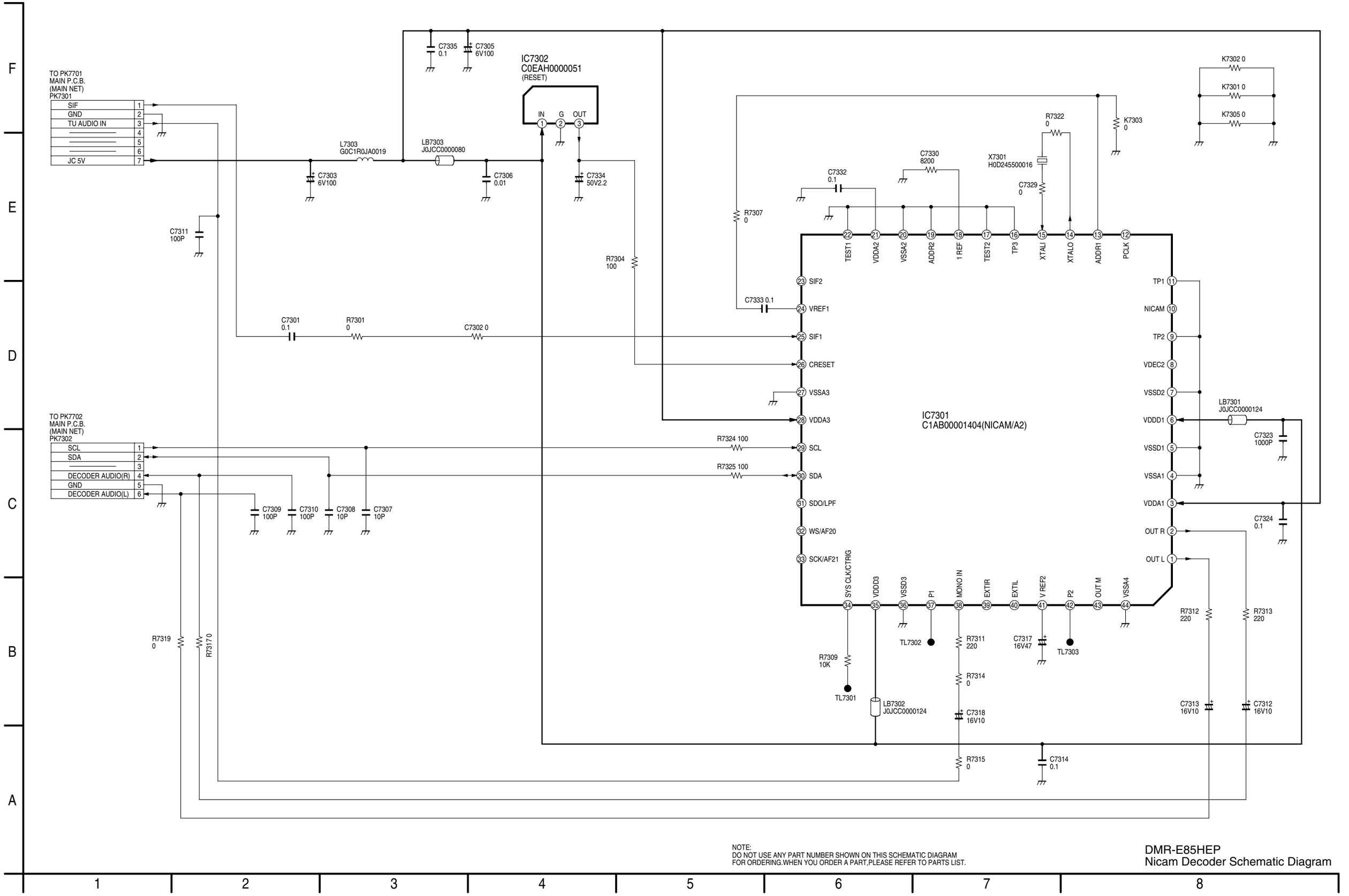
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D7801	SLR-325MG	LED	1	B3ABA0000109
D7804,05	SLR-325MG	LED	2	B3ABA0000109
D7806	B3ACA0000252	LED	1	
IR7801	B3RAD0000071	REMOTE SENSOR	1	
K7801,02	ERJ3GEY0R00V	1/10W 0	2	
P7801	K1KA12B00136	CONNECTOR(12P)	1	
QR7801	UN2214	TRANSISTOR	1	UNR2214
QR7804-06	UN2214	TRANSISTOR	3	UNR2214
R7801	ERDS2FJ330	1/4W 33	1	
R7802	ERJ3GEYJ221V	1/10W 220	1	
R7805,06	ERJ3GEYJ221V	1/10W 220	2	
R7807	ERJ3GEYJ391V	1/10W 390	1	
R7809	ERJ3RBD272	1/16W 2.7K	1	
R7817	ERJ3RBD272	1/16W 2.7K	1	
R7818	ERJ3RBD222V	1/16W 2.2K	1	
R7819	ERA3YED332	1/16W 3.3K	1	
R7825	ERJ3RBD272	1/16W 2.7K	1	
R7826	ERJ3RBD222V	1/16W 2.2K	1	
R7827	ERA3YED332	1/16W 3.3K	1	
R7828	ERJ3RBD562V	1/16W 5.6K	1	
S7801	EVQ11G07K	SWITCH(OPEN/CLOSE)	1	
S7802	EVQ11G07K	SWITCH(SKIP-F)	1	
S7809	EVQ11G07K	SWITCH(CH-DOWN)	1	
S7811	EVQ11G07K	SWITCH(REC)	1	
S7812	EVQ11G07K	SWITCH(STOP)	1	
S7813	EVQ11G07K	SWITCH(SKIP-R)	1	
S7819	EVQ11G07K	SWITCH(CH-UP)	1	
S7820	EVQ11G07K	SWITCH(TIME-SLIP)	1	
S7821	EVQ11G07K	SWITCH(PLAY)	1	
S7822	EVQ11G07K	SWITCH(DRIVE SELECT)	1	

21. Schematic Diagram for printing with A4

Nicam Decoder P.C.B.



DMR-E85HEP
Nicam Decoder P.C.B. (VEP07A51A)



NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM
FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP
Nicam Decoder Schematic Diagram

DIGITAL P.C.B.

Integrated Circuit

IC3401	E-6	C
IC3402	D-6	C
IC3404	D-5	C
IC3406	E-2	F
IC3408	D-3	C
IC3409	E-1	F
IC3501	D-5	F
IC3502	D-2	C
IC4404	E-6	F
IC4405	F-5	F
IC4406	E-6	F
IC4407	D-6	F
IC4408	E-7	F
IC4409	E-7	F
IC6001	C-3	F
IC6002	C-3	F
IC6003	C-6	C
IC6004	B-3	F
IC6005	C-6	C
IC6006	C-5	C
IC6701	B-3	C
IC6703	C-1	C
IC50001	E-4	F
IC50002	E-3	F

Transistor

Q6001	D-4	C
Q6002	D-4	C
Q6701	C-2	C
Q6702	C-2	C
Q6703	C-2	C
Q6704	C-2	C
Q6705	C-2	C
Q50001	E-4	C
Q50002	E-4	C
Q50003	E-4	C
Q50004	E-4	C
Q50005	E-4	C

Transistor-resistor

QR3502	D-6	F
QR3503	D-6	F

Test Point

CKA1	C-2	F
CKA2	B-2	F
CKA3	B-2	F
CKA4	B-2	F
CKA5	B-3	F
CKA7	B-2	F
CKA8	B-3	F
CKA9	B-2	F
CKA10	B-3	F
CKA11	B-2	F
CKA12	B-3	F
CKA13	D-4	F
CKA14	D-4	F
CKA18	C-3	F
CKA21	C-2	F
CKA23	C-2	F
CKA24	C-3	F
CKA25	C-2	F
CKA26	C-3	F
CKA27	C-3	F
CKA28	C-2	F
CKA30	C-2	F
CKA31	D-2	F
CKA32	D-2	F
CKA33	D-2	F
CKA34	D-2	F
CKA36	E-1	F
CKA37	A-2	F
CKA38	A-2	F
CKA39	A-2	F
CKA40	A-2	F
CKA42	D-5	F
CKA43	D-5	F
CKA44	B-2	F
CKA45	B-2	F
CKA46	B-2	F
CKA47	B-2	F
CKA48	C-2	F

CKA49	C-2	F
CKA51	C-2	F
CKA52	C-2	F
CKA53	C-2	F
CKA54	E-1	F
CKA56	C-2	F
CKA58	C-2	F
CKA59	C-2	F
CKA60	C-2	F
CKA61	C-2	F
CKA62	C-2	F
CKA63	C-2	F
CKA65	D-2	F
CKA66	D-2	F
CKA67	D-2	F
CKA68	D-2	F
CKA69	D-2	F
CKA70	B-1	F
CKC19	B-3	F
CKC20	C-3	F
CKC22	A-2	F
CKC24	B-3	F
CKC25	C-3	F
CKC27	A-2	F
CKC29	C-4	F
CKC30	B-3	F
CKC32	C-2	F
CKC33	D-4	F
CKC35	A-2	F
CKC36	B-4	F
CKC37	A-2	F
CKC38	A-2	F
CKC39	A-2	F
CKC41	B-4	F
CKC42	B-4	F
CKC43	B-4	F
CKC44	A-2	F
CKC45	A-2	F
CKC46	B-2	F
CKC47	B-4	F
CKC48	B-3	F
CKC49	B-4	F
CKC51	B-4	F
CKC52	B-4	F
CKC53	B-2	F
CKC54	B-2	F
CKC55	A-2	F
CKC56	A-2	F
CKC57	B-2	F
CKC58	B-2	F
CKC59	B-2	F
CKC61	B-2	F
CKC62	E-1	F
CKC63	B-2	F
CKC64	E-1	F
CKC65	E-1	F
CKC66	E-1	F
CKC67	F-1	F
CKC68	E-1	F
CKC69	E-1	F
CKC88	A-1	F
CKC93	C-1	F
CKC94	C-1	F
CKC95	C-1	F
CKC96	C-1	F
CKC97	C-1	F
CKC98	C-1	F
CKC99	C-1	F
CKC100	C-1	F
CKC102	C-1	F
CKC103	C-1	F
CKC105	C-1	F
CKC106	C-1	F
CKC108	D-1	F
CKC109	D-1	F
CKC112	D-1	F
CKC113	D-1	F
CKC114	E-1	F
CKC115	D-2	F
CKC116	E-1	F

CKC117	D-2	F
CKC118	E-1	F
CKC119	D-2	F
CKC121	D-2	F
CKC122	E-1	F
CKC123	D-1	F
CKC124	D-1	F
CKC125	D-1	F
CKC126	D-1	F
CKC127	D-1	F
CKC128	D-1	F
CKC129	D-1	F
CKC131	D-1	F
CKC132	E-1	F
CKC133	E-1	F
CKC134	E-1	F
CKC135	E-1	F
CKC136	E-1	F
CKC137	E-1	F
CKC138	E-1	F
CKC139	E-1	F
CKF1	C-6	F
CKF3	C-7	F
CKF4	C-7	F
CKF5	C-7	F
CKF6	C-7	F
CKF8	C-7	F
CKF10	C-7	F
CKF12	C-7	F
CKF14	D-6	F
CKF16	C-7	F
CKF18	C-7	F
CKF20	C-7	F
CKF23	D-7	F
CKF24	D-7	F
CKF25	D-7	F
CKF26	D-7	F
CKF27	D-7	F
CKF28	D-7	F
CKF29	D-7	F
CKF30	D-7	F
CKF31	D-7	F
CKF32	D-7	F
CKF33	D-7	F
CKF34	D-7	F
CKF35	D-7	F
CKF36	D-7	F
CKF37	E-7	F
CKF38	E-7	F
CKF40	D-6	F
CKG3	E-5	F
CKG5	E-5	F
CKG7	E-5	F
CKG9	E-5	F
CKG11	E-5	F
CKG13	E-5	F
CKG14	E-5	F
CKH1	B-2	C
CKH2	B-2	C
CKH5	B-2	C
CKH6	B-2	C
CKJ1	E-5	C
CKJ2	E-5	C
CKJ5	E-5	C
CKJ6	E-5	C
CKJ9	E-4	C
CKJ10	E-4	C
CKJ13	E-4	C
CKJ15	E-4	C
CKJ18	E-4	C
CKJ19	E-4	C
CKJ21	E-4	C
CKJ22	E-4	C
CKJ23	E-4	C
CKJ25	E-4	C
CKJ26	E-4	C
CKJ27	E-4	C
CKJ29	E-4	C
CKJ30	E-4	C
CKJ31	E-4	C

CKJ33	E-3	C
CKJ34	E-3	C
CKJ35	E-3	C
CKJ37	E-3	C
CKJ38	E-3	C
CKJ39	E-3	C
CKJ41	E-3	C
CKJ42	E-3	C
CKJ45	E-3	C
CKJ47	E-4	C
CKJ48	E-3	C
CKJ50	E-3	C
CKJ52	E-3	C
CKJ58	E-2	C
CKJ62	E-2	C
CKJ65	D-2	C
CKJ66	E-2	C
CKJ68	E-2	C
CKJ69	D-2	C
CKJ70	F-2	C
CKJ72	F-2	C
CKJ74	E-2	C
CKJ75	F-5	C
CKJ78	E-2	C
CKJ79	E-3	C
CKJ81	E-3	C
CKJ82	E-3	C
CKJ83	E-7	C
CKJ94	E-3	C
CL3401	E-6	C
CL3402	E-5	C
CL3403	F-6	C
CL3404	F-6	C
CL3405	F-6	C
CL3406	F-6	C
CL3407	E-6	C
CL3408	E-5	C
CL3409	E-5	C
CL3410	F-6	C
CL3426	D-5	C
CL3427	D-5	C
CL3428	E-5	C
CL3429	D-4	C
CL3430	D-5	C
CL3431	D-5	C
CL3432	D-5	C
CL6001	B-3	F
CL6002	D-3	F
CL6003	B-4	F
CL6004	D-3	F
CL6005	D-3	F
CL6006	D-3	F
CL6007	D-3	F
CL6701	A-2	C
CL6702	B-4	C
CL6703	B-4	C
CL6704	B-4	C
CL6705	B-4	C
CL6706	C-3	C
CL6707	C-3	C
CL6708	C-3	C
CL6709	C-3	C
CL6710	C-4	C
CL6711	A-3	C
CL6712	C-3	C
CL6713	C-4	C
CL6714	C-3	C
CL6715	C-4	C
CL6717	B-4	C
CL6718	A-3	C
CL6719	A-3	C
CL6720	A-3	C
CL6721	A-3	C
CL6722	B-2	C
CL6723	B-3	C
CL6724	B-2	C
CL6725	B-3	C
CL6726	B-3	C
CL6727	B-2	C
CL6728	B-2	C

CL6729	B-2	C
CL6730	B-2	C
CL6731	B-2	C
CL6732	B-1	C
CL6733	B-2	C
CL6734	B-2	C
CL6735	B-2	C
CL6736	B-2	C
CL6737	B-2	C
CL6738	B-2	C
CL6744	B-2	C
CL6745	B-2	C
CL6746	B-2	C
CL6747	B-2	C
CL6748	A-3	C
CL6749	A-3	C
CL9006	A-3	C
CL9019	A-3	C
CL9022	A-3	C
CL9023	A-3	C
CL9024	A-3	C
CL9025	A-3	C
CL9028	A-3	C
CL9029	A-4	C
CL37001	C-6	F
CL37002	C-6	F
CL37003	C-6	F
CL37004	C-6	F
CL37005	C-6	F
CL37006	C-6	F
CL37007	B-6	F
CL37008	B-6	F
CL37009	B-6	F
CL37010	B-6	F
CL37011	C-6	F
CL37012	C-6	F
CL37013	C-6	F
CL50001	D-3	F
CL50005	B-3	F
CL50006	B-3	F
CL50007	B-4	F
CL50008	D-3	F
CL50009	D-3	F
TL6001	A-5	F
TL6002	A-5	F
TL6003	A-5	F
TL6004	B-6	F
TL6005	B-6	F
TL6006	B-6	F

Connector

FP3501	D-7	F
P6002	B-4	F
P9001	E-3	C

Diode

D3401	E-5	C
D3402	E-6	C
D4401	E-7	F

Crystal Osillator

X3401	E-2	F
X3501	D-5	F

Coil

LB3404	D-7	C
LB3405	C-6	C
LB3408	C-3	C
LB3409	D-3	C
LB4401	E-7	F
LB4402	E-6	F
LB4403	E-7	F
LB4404	D-5	F
LB4405	E-6	F
LB6001	C-5	C
LB6002	B-6	C
LB6003	C-4	C
LB6004	C-5	C
LB9001	E-4	C
LB9002	E-4	C
LB9006	E-3	C
LB9007	E-2	C
LB9008	F-2	C
LB9009	F-2	C

LB50001	F-5	C
LB50002	E-4	F
LB50003	D-3	F
LB50004	D-3	F
LB50005	E-2	F

Filter

FL3401	F-5	C
FL3402	E-6	C
FL3404	E-5	C
FL3406	E-6	C
FL3407	E-6	C
FL3409	E-7	C
FL3410	D-7	C
FL3411	C-6	C
FL3412	E-2	F
FL3414	D-5	C
FL3415	D-5	C
FL3416	D-5	C
FL3417	C-5	C
FL3418	D-4	C
FL3419	C-5	C
FL3420	D-4	C
FL3421	D-6	C
FL3422	E-5	C
FL3423	E-5	C
FL3424	D-4	C
FL3425	D-4	C
FL3426	D-5	C
FL3429	E-2	F
FL3431	E-2	F
FL3433	E-1	F
FL3434	C-3	C
FL3435	D-3	C
FL3501	E-1	C
FL3502	C-1	C
FL3505	C-5	F
FL3506	C-5	F
FL3507	D-5	F
FL3508	C-6	F
FL3509	D-6	F
FL3510	D-5	F
FL3511	D-5	F
FL3512	D-6	F
FL3513	D-6	F
FL3514	C-5	F
FL3515	C-6	F
FL3516	D-6	F
FL4403	E-7	F
FL4404	E-6	F
FL4405	D-5	F
FL6001	C-6	C
FL6002	B-3	F
FL6003	D-3	F
FL6004	D-4	F
FL6005	D-4	F
FL6006	C-4	F
FL6007	C-4	C
FL6008	D-4	F
FL6009	C-4	F
FL6010	C-4	F
FL6011	C-4	F
FL6012	D-4	F
FL6013	C-4	F
FL6014	D-4	F
FL6015	C-4	F
FL6016	D-4	F
FL6017	B-4	F
FL6018	C-5	C
FL6020	B-4	F
FL6021	D-3	F
FL6022	B-5	C
FL6023	B-6	C
FL6701	B-4	C
FL6702	C-4	C
FL6703	C-1	C
FL6704	E-2	F
FL6705	D-6	F
FL50001	E-4	F
FL50002	D-3	F
FL50003	D-3	F
FL50004	D-3	F
FL50005	C-3	F

Capacitor

C3401	E-2	F
C3402	E-6	C
C3403	F-6	C
C3404	E-5	C
C3405	E-5	C
C3406	F-6	C
C3407	E-2	F
C3408	E-2	F
C3410	F-6	C
C3411	E-6	C
C3417	F-5	C
C3418	F-5	C
C3419	E-5	C
C3420	E-5	C
C3421	E-5	C
C3422	E-5	C
C3423	E-5	C
C3424	E-5	C
C3425	E-5	C
C3426	E-5	C
C3427	E-5	C
C3428	E-5	C
C3429	E-7	C
C3430	E-6	C
C3431	E-6	C
C3432	E-6	C
C3433	E-6	C
C3435	E-6	C
C3436	E-6	C
C3440	E-7	C
C3441	E-2	F
C3502	C-7	F
C4411	E-6	F
C4412	E-2	C
C4413	E-1	C
C4414	E-6	F
C4415	E-5	F
C4416	D-4	C
C4417	E-6	F
C4418	D-3	C
C4421	E-3	C
C4422	E-1	C
C4423	D-3	C
C4424	F-4	F
C4425	F-6	F
C4426	E-5	F
C4427	E-2	C
C4428	E-6	F
C4429	E-6	F
C4430	E-6	F
C4431	E-6	F
C4432	E-7	F
C4433	E-1	C
C4434	E-7	F
C6001	D-3	F
C6002	D-4	F
C6003	C-3	F
C9001	E-4	C
C9002	E-4	C
C50001	C-3	F
C50002	C-5	C
C50004	C-5	C
C50005	F-5	C

Resistor

R3405	E-5	C
R3407	E-5	C
R3409	E-6	C
R3410	E-6	C
R3411	E-6	C
R3412	E-6	C
R3414	E-2	F
R3416	E-6	C
R3417	E-6	C
R3418	E-6	C
R3419	D-5	C
R3420	D-5	C
R3421	D-5	C
R3422	E-5	C

R3423	E-5	C
R3427	E-5	C
R3430	D-5	C
R3432	E-5	C
R3433	D-4	C
R3434	E-5	C
R3436	E-2	F
R3438	E-5	C
R3440	D-4	C
R3442	D-4	C
R3443	D-4	C
R3444	D-4	C
R3445	D-2	F
R3447	E-2	F
R3448	E-2	F
R3449	E-2	F
R3450	E-2	F
R3451	E-2	F
R3452	D-2	F
R3453	D-2	F
R3454	E-2	F
R3455	D-2	F
R3456	D-2	F
R3457	E-2	F
R3458	D-2	F
R3460	D-2	F
R3461	E-2	F
R3462	E-2	F
R3463	D-5	C
R3464	C-5	C
R3472	D-4	C
R3473	D-5	C
R3476	E-5	C
R3501	C-5	F
R3502	C-5	F
R3503	C-5	F
R3509	C-5	F
R3510	D-5	F
R3511	D-5	F
R3514	D-5	F
R3519	D-6	F
R3520	D-6	F
R3521	D-6	F
R3522	D-6	F
R3523	D-6	F
R3524	D-6	F
R3525	D-6	F
R3526	C-6	F
R3527	C-6	F
R3528	C-6	F
R3530	D-6	F
R3531	C-7	F
R3532	D-6	F
R3533	C-7	F
R3535	C-7	F
R3537	C-7	F
R3541	D-6	F
R3542	D-6	F
R3543	D-7	F
R3548	D-6	F
R3553	D-6	F
R4418	E-7	F
R4419	E-7	F
R4420	E-7	F
R4421	E-7	F
R4422	E-6	F
R4423	E-7	F
R4424	E-6	F
R4425	E-6	F
R4426	F-2	C
R4427	F-2	C
R4429	E-6	F
R4430	F-6	F
R4431	F-5	F
R4432	F-5	F
R4434	E-6	F
R4435	E-6	F
R4436	E-6	F
R4437	E-6	F
R4438	D-6	F
R4439	D-6	F

R4450	E-7	F
R4451	E-7	F
R4452	E-6	F
R4453	E-7	F
R4454	D-6	F
R4455	D-6	F
R4456	E-6	F
R4457	E-7	F
R6001	B-1	F
R6002	C-3	F
R6003	C-4	F
R6004	E-4	C
R6005	D-4	C
R6006	D-4	C
R6007	D-4	C
R6008	C-6	C
R6009	C-4	F
R6010	C-4	F
R6011	C-4	C
R6013	B-4	F
R6014	A-5	F
R6015	A-5	F
R6016	A-5	F
R6017	B-4	F
R6018	B-3	F
R6019	B-3	F
R6020	B-3	F
R6021	B-3	F
R6022	B-3	F
R6023	B-3	F
R6024	D-3	F
R6027	B-3	F
R6028	D-3	F
R6029	C-3	F
R6031	D-3	F
R6035	D-3	F
R6036	D-3	F
R6037	D-3	F
R6039	D-3	F
R6040	C-5	C
R6041	B-6	C
R6042	B-6	C
R6043	D-3	F
R6044	D-2	F
R6045	B-3	C
R6046	A-3	C
R6047	B-3	C
R6048	B-3	C
R6049	B-3	C
R6050	B-3	C
R6051	B-3	C
R6052	B-3	C
R6053	C-2	C
R6054	C-2	C
R6055	C-2	C
R6056	C-2	C
R6057	C-2	C
R6058	C-2	C
R6059	C-2	C
R6060	C-2	C
R6061	C-2	C
R6062	C-2	C
R6063	C-2	C
R6064	C-2	C
R6065	C-2	C
R6066	C-2	C
R6067	C-2	C
R6068	C-2	C
R6069	C-2	C
R6070	C-2	C
R6071	C-2	C
R6072	C-2	C
R6073	C-2	C
R6074	C-2	C
R6075	C-2	C
R6076	C-2	C
R6077	C-2	C
R6078	C-2	C
R6079	C-2	C
R6080	C-2	C
R6081	C-2	C
R6082	C-2	C
R6083	C-2	C
R6084	C-2	C
R6085	C-2	C
R6086	C-2	C
R6087	C-2	C
R6088	C-2	C
R6089	C-2	C
R6090	C-2	C
R6091	C-2	C
R6092	C-2	C
R6093	C-2	C
R6094	C-2	C
R6095	C-2	C
R6096	C-2	C
R6097	C-2	C
R6098	C-2	C
R6099	C-2	C
R6100	C-2	C
R6101	C-2	C
R6102	C-2	C
R6103	C-2	C
R6104	C-2	C
R6105	C-2	C
R6106	C-2	C
R6107	C-2	C
R6108	C-2	C
R6109	C-2	C
R6110	C-2	C
R6111	C-2	C
R6112	C-2	C
R6113	C-2	C
R6114	C-2	C
R6115	C-2	C
R6116	C-2	C
R6117	C-2	C
R6118	C-2	C
R6119	C-2	C
R6120	C-2	C
R6121	C-2	C
R6122	C-2	C
R6123	C-2	C
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R6125	C-2	C
R6126	C-2	C
R6127	C-2	C
R6128	C-2	C
R6129	C-2	C
R6130	C-2	C
R6131	C-2	C
R6132	C-2	C
R6133	C-2	C
R6134	C-2	C
R6135	C-2	C
R6136	C-2	C
R6137	C-2	C
R6138	C-2	C
R6139	C-2	C
R6140	C-2	C
R6141	C-2	C
R6142	C-2	C
R6143	C-2	C
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R6145	C-2	C
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R6153	C-2	C
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R6158	C-2	C
R6159	C-2	C
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R6181	C-2	C
R6182	C-2	C
R6183	C-2	C
R6184	C-2	C
R6185	C-2	C
R6186	C-2	C
R6187	C-2	C
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R6189	C-2	C
R6190	C-2	C
R6191	C-2	C
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R6195	C-2	C
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R6200	C-2	C
R6201	C-2	C
R6202	C-2	C
R6203	C-2	C
R6204	C-2	C
R6205	C-2	C
R6206	C-2	C
R6207	C-2	C
R6208	C-2	C
R6209	C-2	C
R6210	C-2	C
R6211	C-2	C
R6212	C-2	C
R6213	C-2	C
R6214	C-2	C
R6215	C-2	C
R6216	C-2	C
R6217	C-2	C
R6218	C-2	C
R6219	C-2	C
R6220	C-2	C
R6221	C-2	C
R6222	C-2	C
R6223	C-2	C
R6224	C-2	C
R6225	C-2	C
R6226	C-2	C
R6227	C-2	C
R6228	C-2	C
R6229	C-2	C
R6230	C-2	C
R6231	C-2	C
R6232	C-2	C
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R6239	C-2	C
R6240	C-2	C
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R6243	C-2	C
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R6245	C-2	C
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R6249	C-2	C
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R6251	C-2	C
R6252	C-2	C
R6253	C-2	C
R6254	C-2	C
R6255	C-2	C
R6256	C-2	C
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R6258	C-2	C
R6259	C-2	C
R6260	C-2	C
R6261	C-2	C
R6262	C-2	C
R6263	C-2	C
R6264	C-2	C
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R6266	C-2	C
R6267	C-2	C
R6268	C-2	C
R6269	C-2	C
R6270	C-2	C
R6271	C-2	C
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R6276	C-2	C
R6277	C-2	C
R6278	C-2	C
R6279	C-2	C
R6280	C-2	C
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R6282	C-2	C
R6283	C-2	C
R6284	C-2	C
R6285	C-2	C
R6286	C-2	C
R6287	C-2	C
R6288	C-2	C
R6289	C-2	C
R6290	C-2	C
R6291	C-2	C
R6292	C-2	C
R6293	C-2	C
R6294	C-2	C
R6295	C-2	C
R6296	C-2	C
R6297	C-2	C
R6298	C-2	C
R6299	C-2	C
R6300	C-2	C
R6301	C-2	C
R6302	C-2	C
R6303	C-2	C
R6304	C-2	C
R6305	C-2	C
R6306	C-2	C
R6307	C-2	C
R6308	C-2	C
R6309	C-2	C
R6310	C-2	C
R6311	C-2	C
R6312	C-2	C
R6313	C-2	C
R6314	C-2	C
R6315	C-2	C
R6316	C-2	C
R6317	C-2	C
R6318	C-2	C
R6319	C-2	C
R6320	C-2	C
R6321	C-2	C
R6322	C-2	C
R6323	C-2	C
R6324	C-2	C
R6325	C-2	C
R6326	C-2	C
R6327	C-2	C
R6328	C-2	C
R6329	C-2	C
R6330	C-2	C
R6331	C-2	C
R6332	C-2	C
R6333	C-2	C
R6334	C-2	C
R6335	C-2	C
R6336	C-2	C
R6337	C-2	C
R6338	C-2	C
R6339	C-2	C
R6340	C-2	C
R6341	C-2	C
R6342	C-2	C
R6343	C-2	C
R6344	C-2	C
R6345	C-2	C
R6346	C-2	C
R6347	C-2	C
R6348	C-2	C
R6349	C-2	C
R6350	C-2	C
R6351	C-2	C
R6352	C-2	C
R6353	C-2	C
R6354	C-2	C
R6355	C-2	C
R6356	C-2	C
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R6358	C-2	C
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R6360	C-2	C
R6361	C-2	C
R6362	C-2	C
R6363	C-2	C
R6364	C-2	C
R6365	C-2	C
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R6370	C-2	C
R6371	C-2	C
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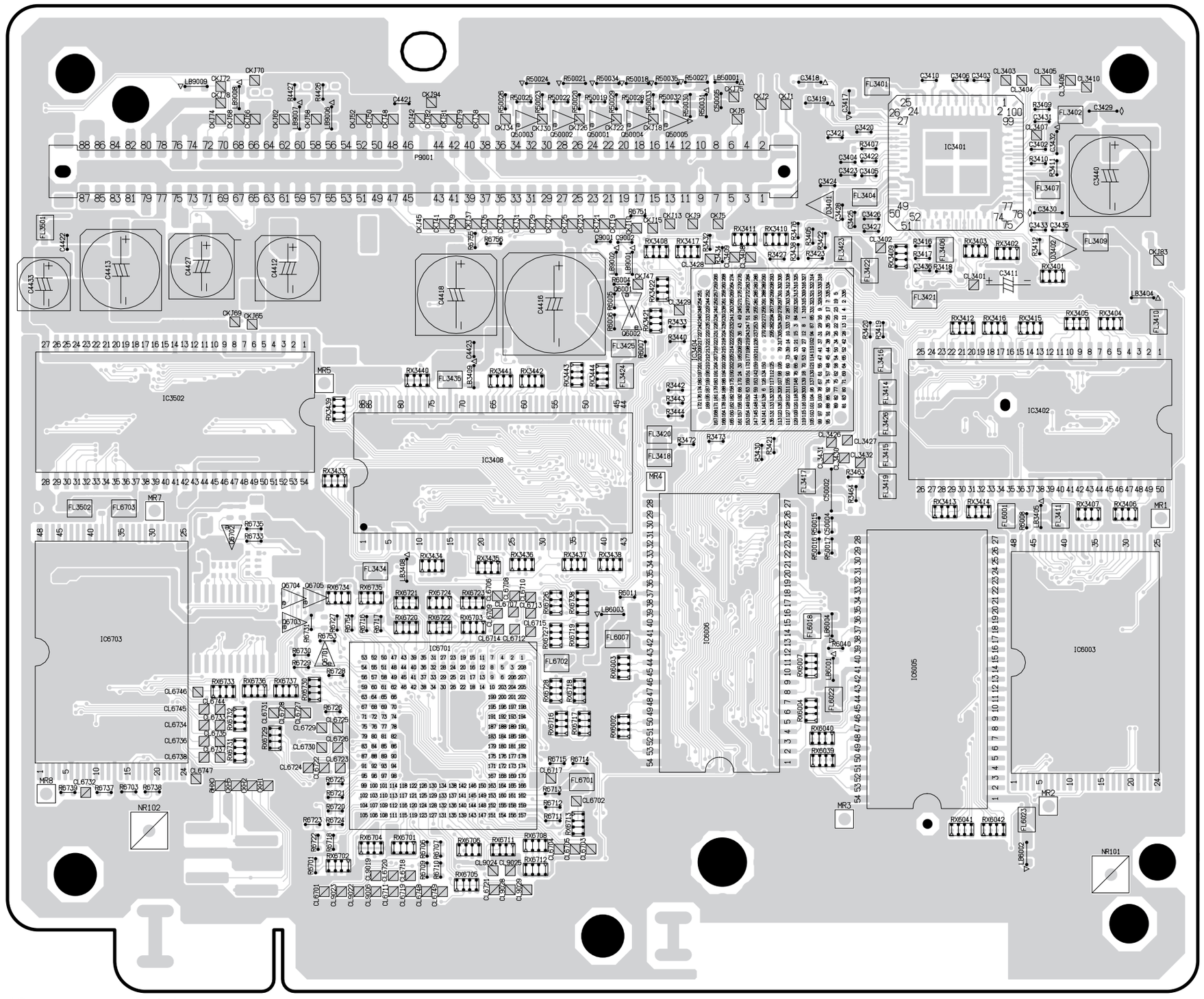
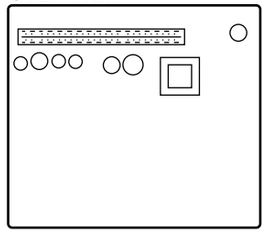
R6373	C-2	C
R6374	C-2	C
R6375	C-2	C
R6376	C-2	C
R6377	C-2	C
R6378	C-2	C
R6379	C-2	C
R6380	C-2	C
R6381	C-2	C
R6382	C-2	C
R6383	C-2	C
R6384	C-2	C
R6385	C-2	C
R6386	C-2	C
R6387	C-2	C
R6388	C-2	C
R6389	C-2	C
R6390	C-2	C
R6391	C-2	C
R6392	C-2	C
R6393	C-2	C
R6394	C-2	C
R6395	C-2	C
R6396	C-2	C
R6397	C-2	C
R6398	C-2	C
R6399	C-2	C
R6400	C-2	C
R6401	C-2	C
R6402	C-2	C
R6403	C-2	C
R6404	C-2	C
R6405	C-2	C
R6406	C-2	C
R6407	C-2	C
R6408	C-2	C
R6409	C-2	C
R6410	C-2	C
R6411	C-2	C
R6412	C-2	C
R6413	C-2	C
R6414	C-2	C
R6415	C-2	C
R6416	C-2	C
R6417	C-2	C
R6418	C-2	C
R6419	C-2	C
R6420	C-2	C
R6421	C-2	C
R6422	C-2	C
R6423	C-2	C
R6424	C-2	C
R6425	C-2	C
R6426	C-2	C
R6427	C-2	C
R6428	C-2	C
R6429	C-2	C
R6430	C-2	C
R6431	C-2	C
R6432	C-2	C
R6433	C-2	C
R6434	C-2	C
R6435	C-2	C
R6436	C-2	C
R6437	C-2	C
R6438	C-2	C
R6439	C-2	C
R6440	C-2	C
R6441	C-2	C
R6442	C-2	C
R6443	C-2	C
R6444	C-2	C
R6445	C-2	C
R6446	C-2	C
R6447	C-2	C
R6448	C-2	C
R6449	C-2	C
R6450	C-2	C
R6451	C-2	C
R6452

Digital P.C.B.



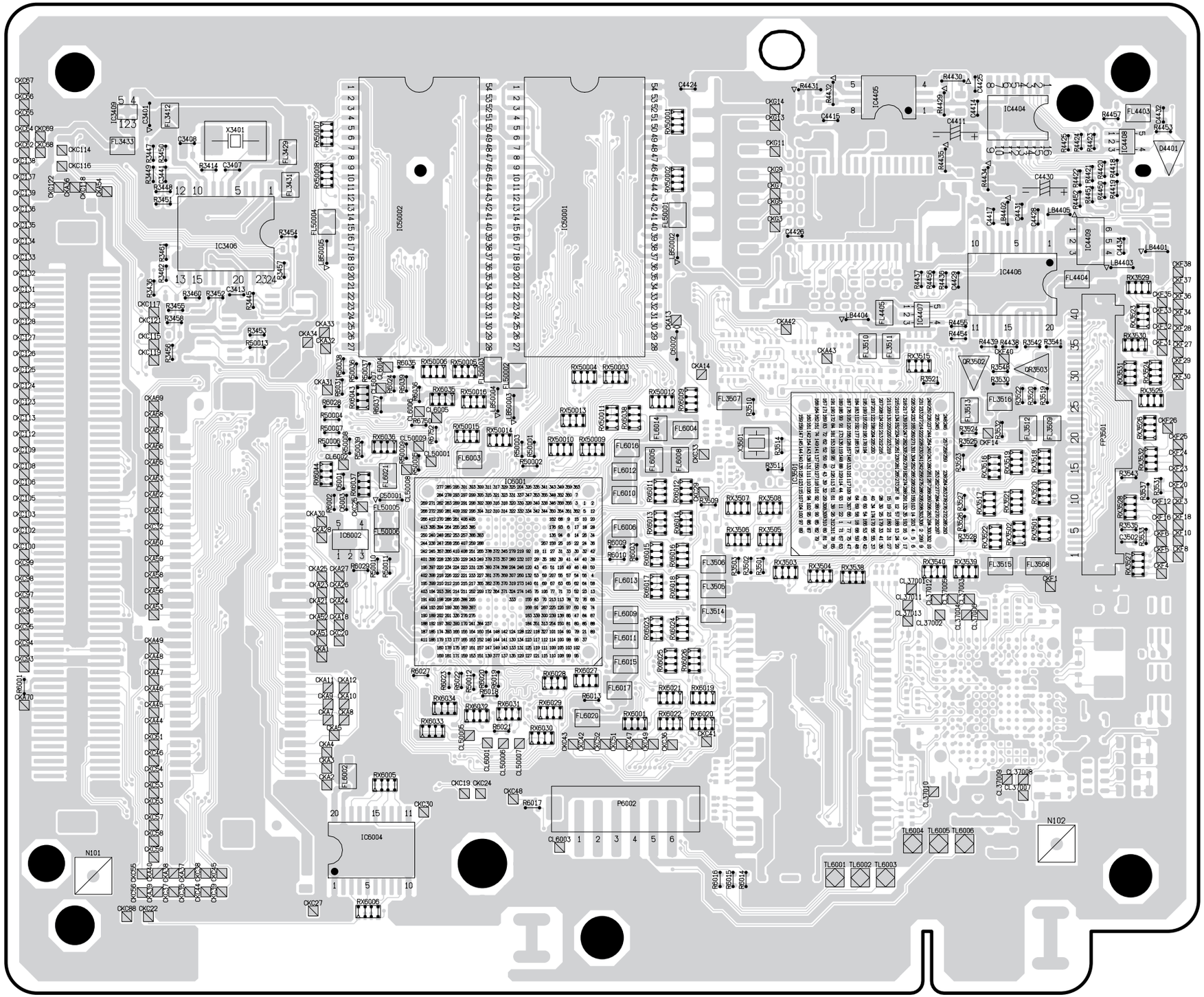
OVER VIEW



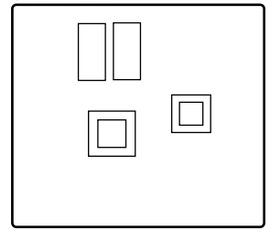
(Component Side)

DMR-E85HEP
Digital P.C.B. (Component Side)
RFKBE85HEP

Digital P.C.B.

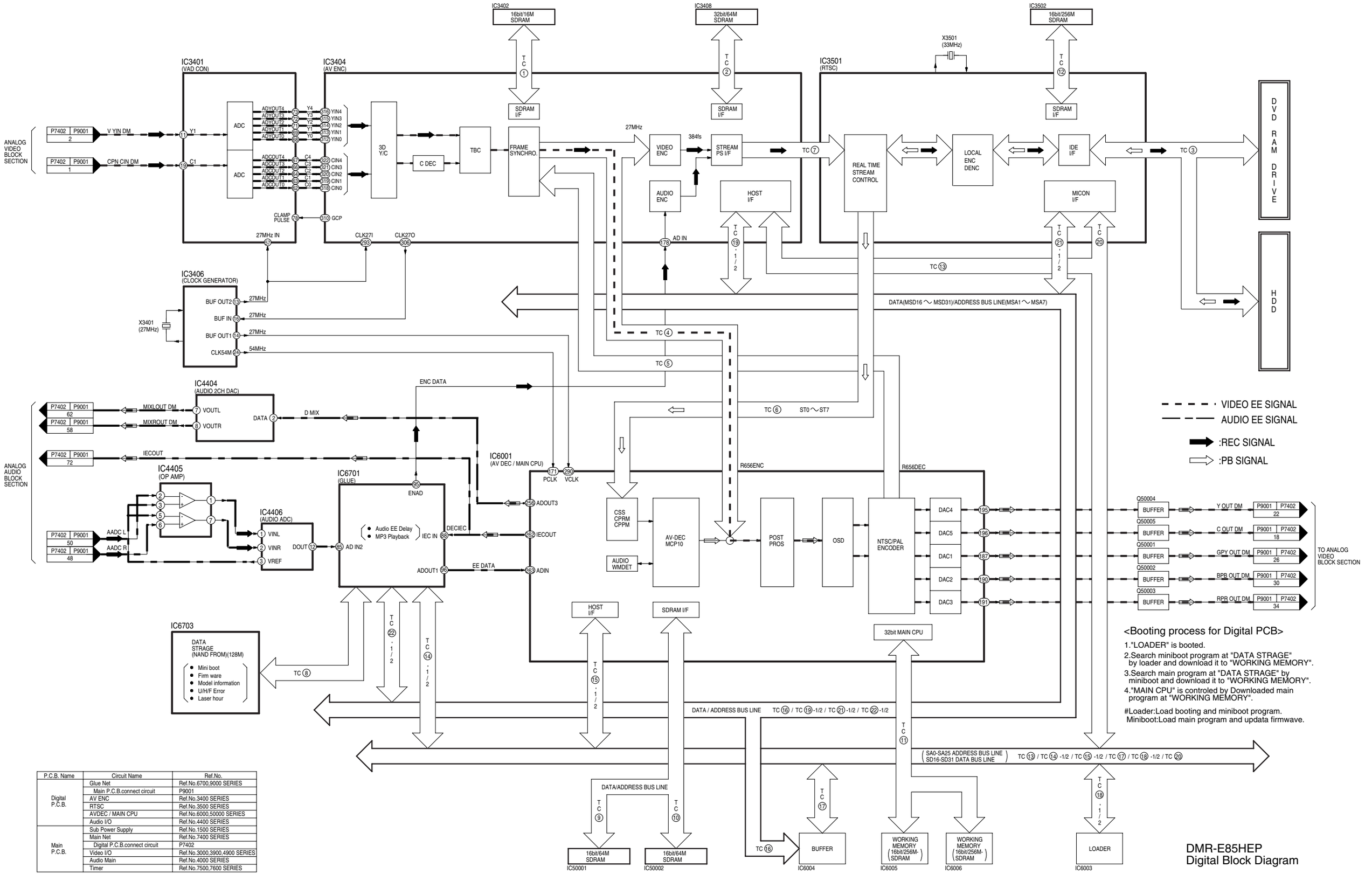


OVER VIEW



(Foil Side)

DMR-E85HEP
Digital P.C.B. (Foil Side)
RFKBE85HEP



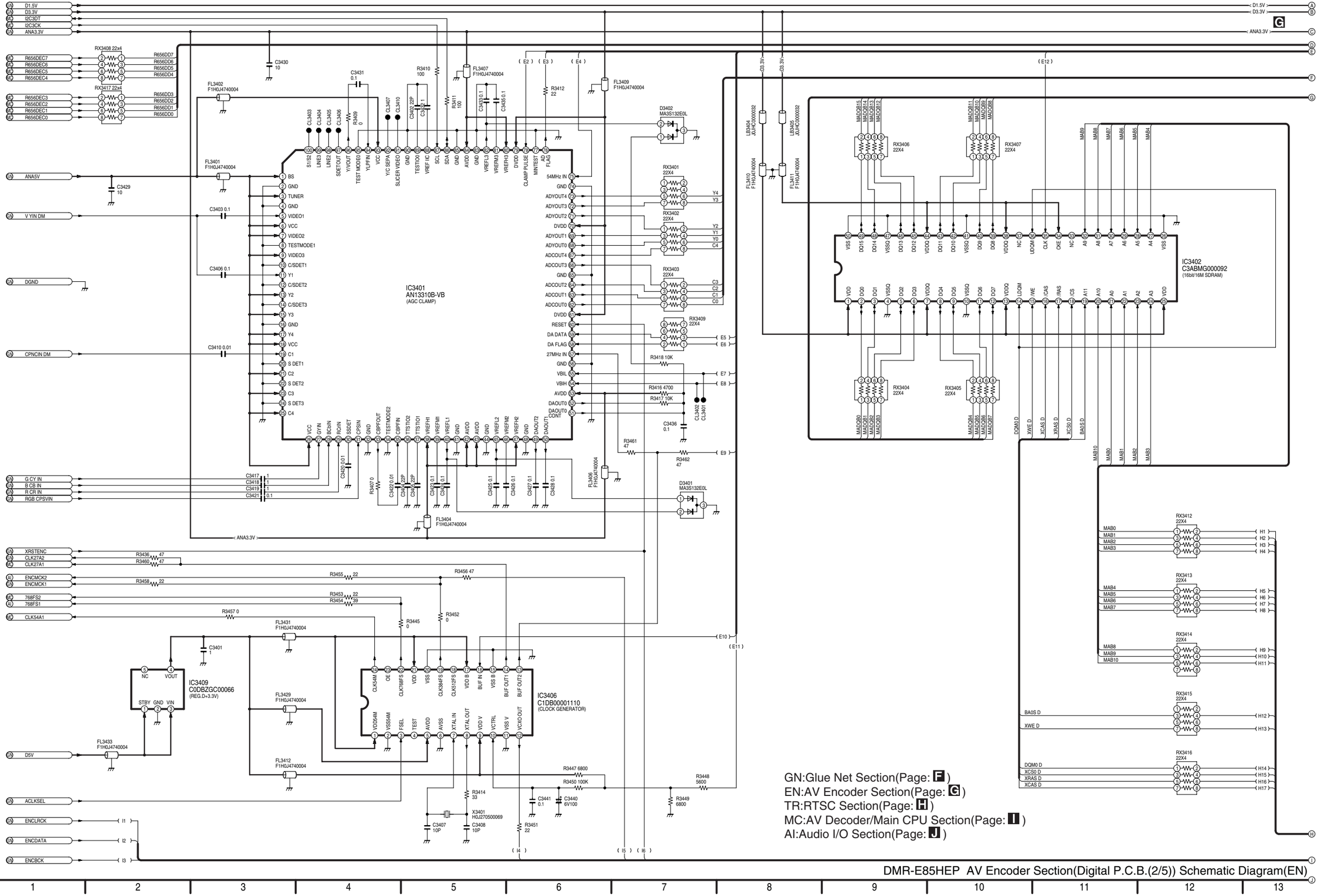
<Booting process for Digital PCB>

1."LOADER" is booted.
2.Search miniboot program at "DATA STRAGE" by loader and download it to "WORKING MEMORY".
3.Search main program at "DATA STRAGE" by miniboot and download it to "WORKING MEMORY".
4."MAIN CPU" is controled by Downloaded main program at "WORKING MEMORY".

#Loader:Load booting and miniboot program.
Miniboot:Load main program and updata firmwave.

P.C.B. Name	Circuit Name	Ref.No.
Digital P.C.B.	Glue Net	Ref.No.6700,9000 SERIES
	Main P.C.B.connect circuit	P9001
	AV ENC	Ref.No.3400 SERIES
	RTSC	Ref.No.3500 SERIES
	AVDEC / MAIN CPU	Ref.No.6000,50000 SERIES
	Audio I/O	Ref.No.4400 SERIES
Main P.C.B.	Sub Power Supply	Ref.No.1500 SERIES
	Main Net	Ref.No.7400 SERIES
	Digital P.C.B.connect circuit	P7402
	Video I/O	Ref.No.3000,3900,4900 SERIES
	Audio Main	Ref.No.4000 SERIES
	Timer	Ref.No.7500,7600 SERIES

DMR-E85HEP
Digital Block Diagram



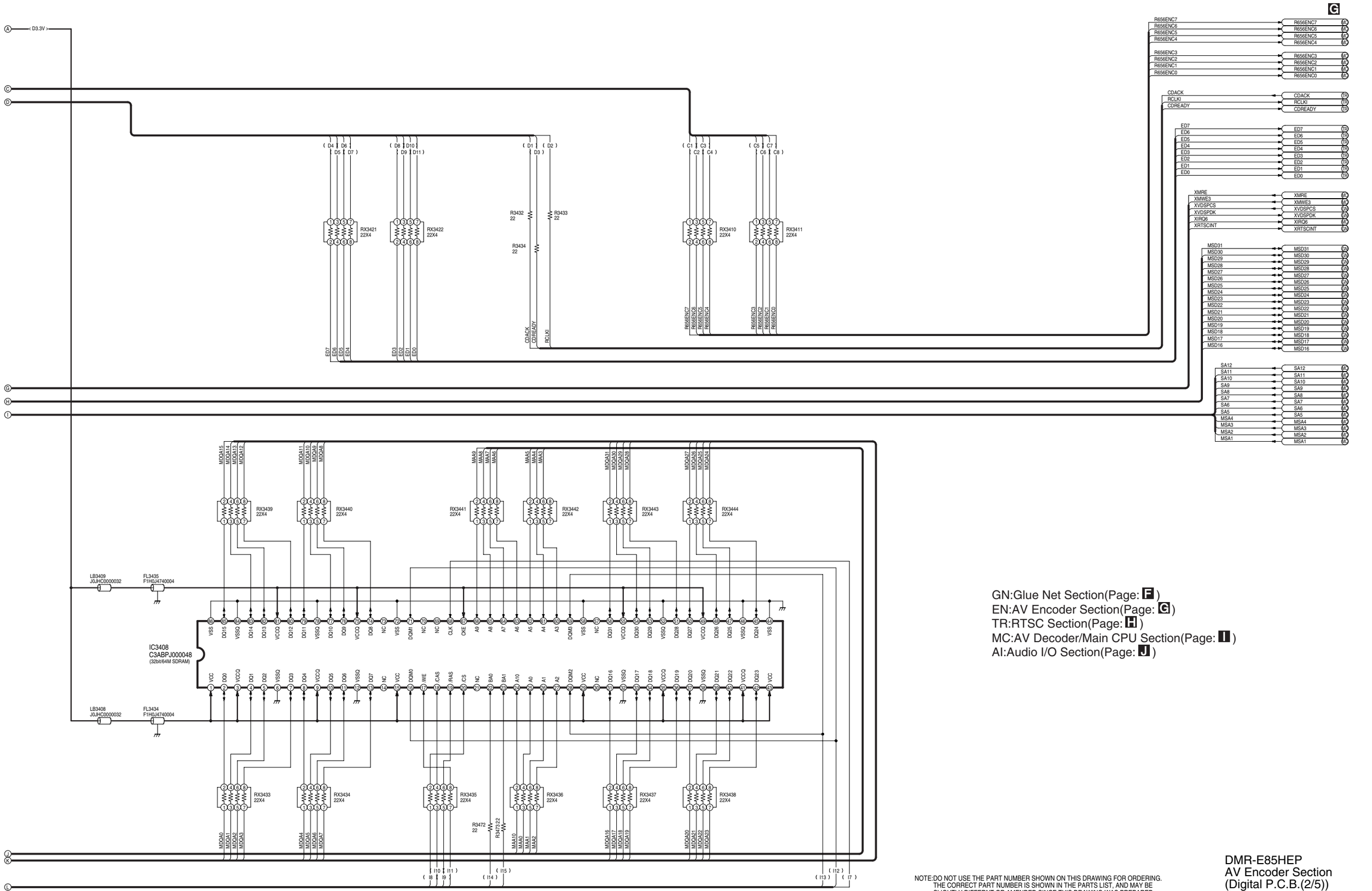
DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

IC3404
MN85573
(AVENC)

DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

13 14 15 16 17 18 19 20 21 22 23 24 25



GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

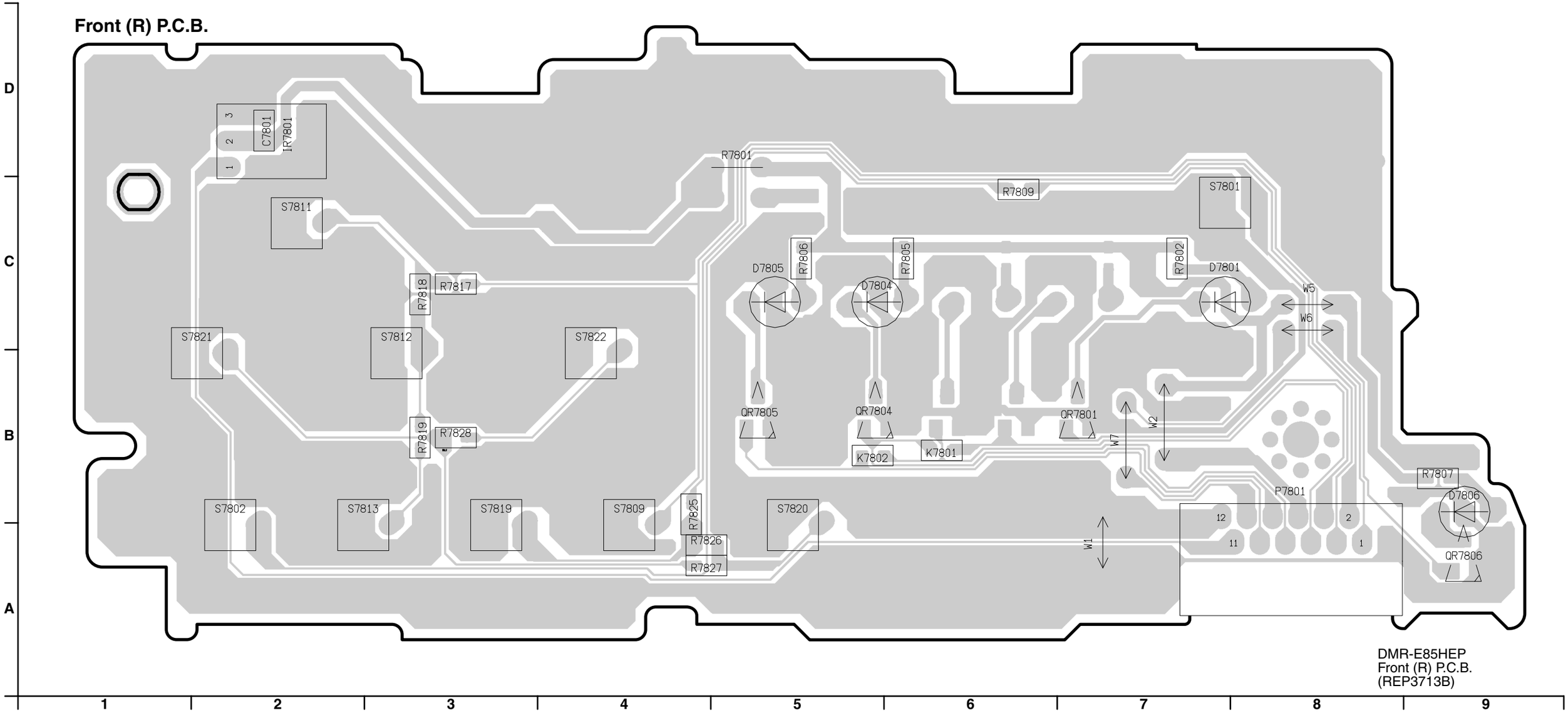
DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

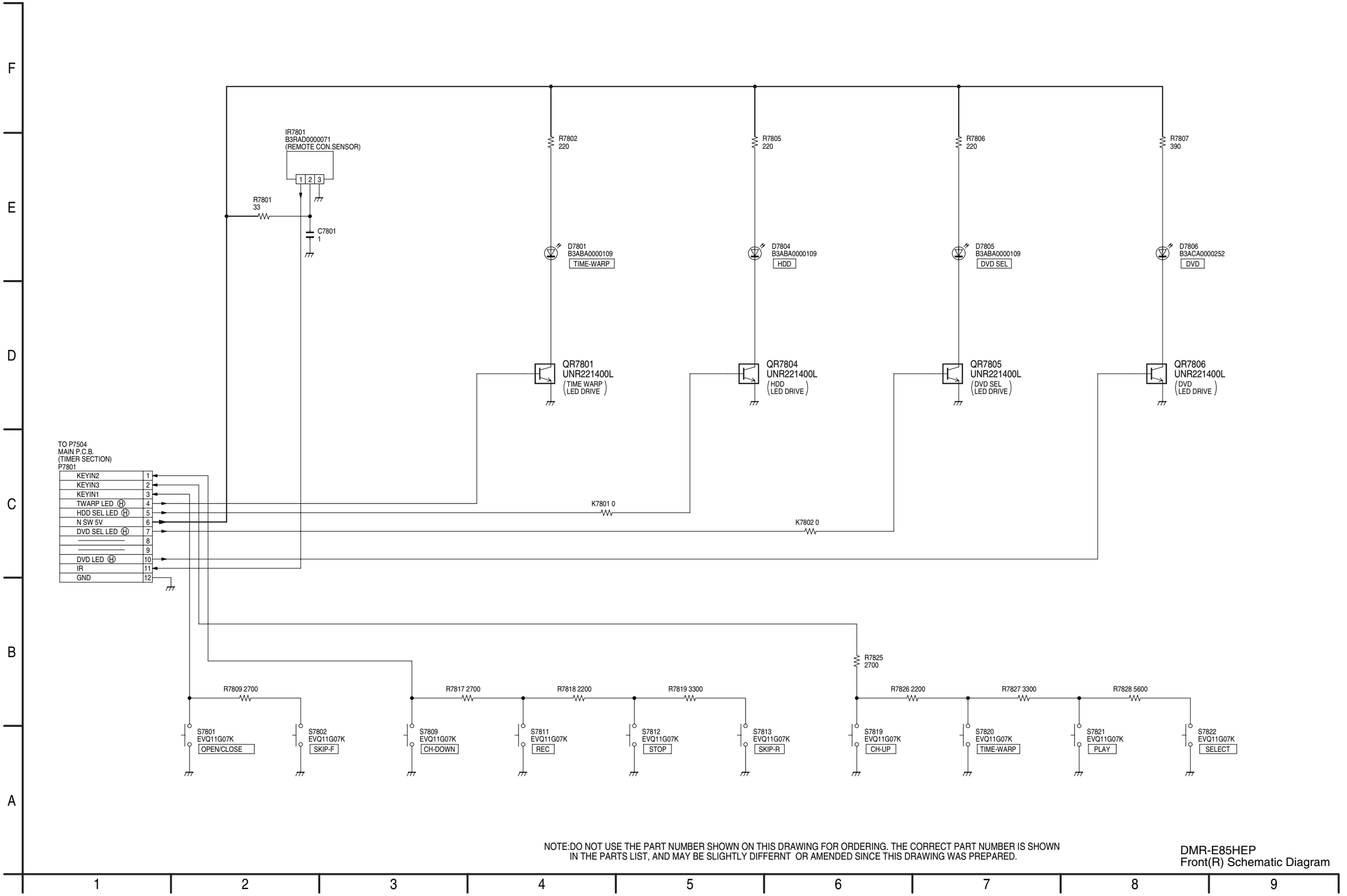
DMR-E85HEP
AV Encoder Section
(Digital P.C.B.(2/5))
Schematic Diagram(EN)

26 27 28 29 30 31 32 33 34 35 36 37

Front (R) P.C.B.



DMR-E85HEP
Front (R) P.C.B.
(REP3713B)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Front(R) Schematic Diagram

Ref No. / MODE	QR7801		
	E	C	B
REC	0	3.5	0
PLAY	0	3.5	0
STOP	0	3.5	0

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

IC6701
C1ZBZ0002433
(GLUE)

Q6701
B1ABCF000114
(BUFFER)

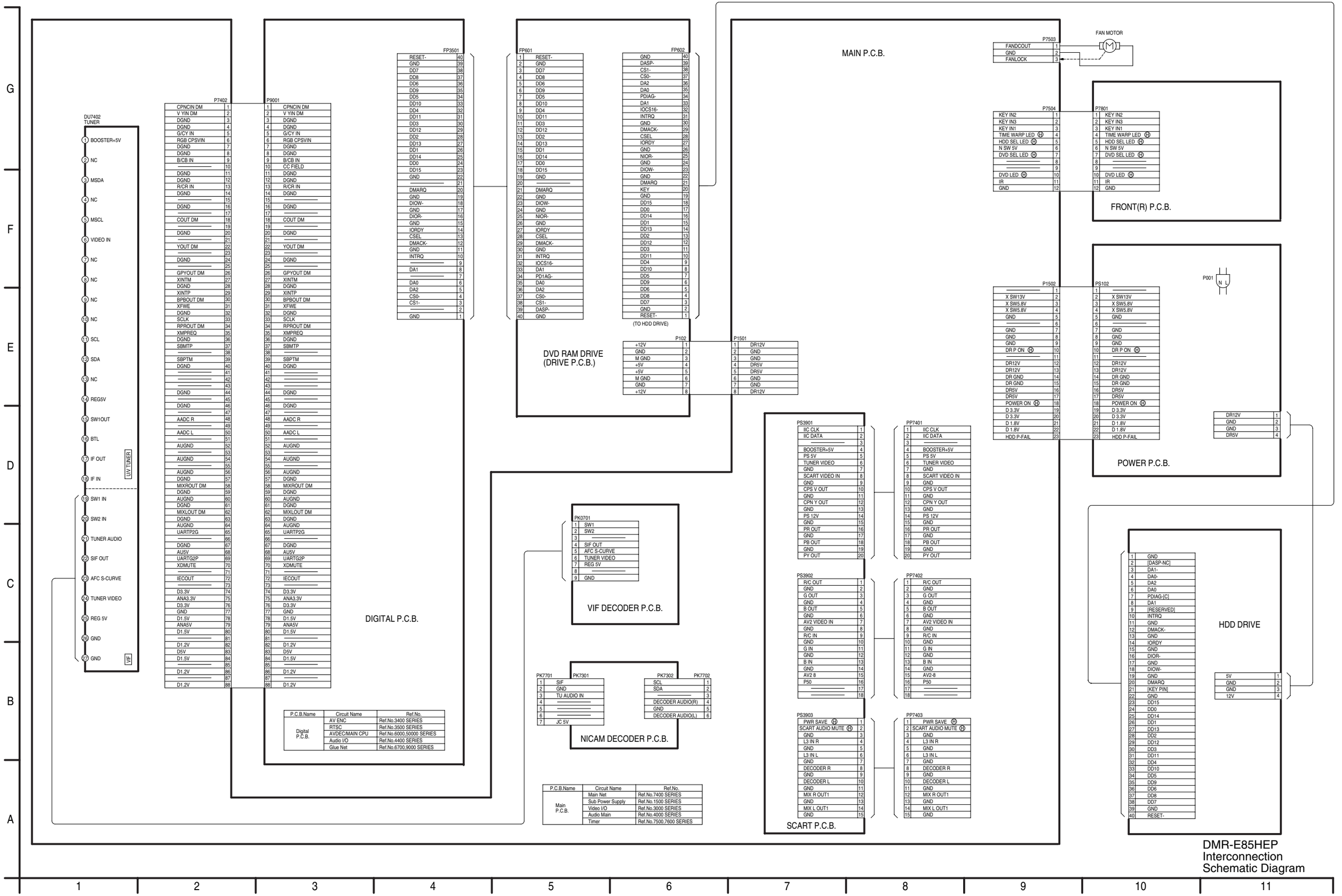
DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5)) Schematic Diagram(GN)

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5)) Schematic Diagram(GN)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5))
Schematic Diagram(GN)



P.C.B.Name	Circuit Name	Ref.No.
Digital P.C.B.	AV ENC	Ref.No.3400 SERIES
	RTSC	Ref.No.3500 SERIES
	AVDEC/MAIN CPU	Ref.No.6000,50000 SERIES
	Audio I/O	Ref.No.4400 SERIES
	Glue Net	Ref.No.6700,9000 SERIES

P.C.B.Name	Circuit Name	Ref.No.
Main P.C.B.	Main Net	Ref.No.7400 SERIES
	Sub Power Supply	Ref.No.1500 SERIES
	Video I/O	Ref.No.3000 SERIES
	Audio Main	Ref.No.4000 SERIES
	Timer	Ref.No.7500,7600 SERIES

MAIN P.C.B.

Integrated Circuit	
IC1502	B-8
IC1505	C-2
IC1506	B-6
IC1507	C-2
IC1508	B-5
IC1509	C-5
IC1510	C-5
IC3001	E-7
IC3002	D-5
IC3003	E-5
IC4001	E-4
IC4005	F-2
IC4006	F-2
IC4007	E-2
IC4009	E-3
IC4010	E-2
IC4011	C-5
IC4012	E-2
IC4013	E-2
IC7401	F-5
IC7402	F-7
IC7403	E-7
IC7501	C-3
IC7502	A-3
IC7503	C-2
IC7504	A-8
IC7505	C-2
IC7506	E-1
IC7508	B-4
Transistor	
Q3006	E-6
Q3007	E-7
Q3009	D-5
Q3010	D-6
Q4004	D-2
Q4006	F-2
Q4007	F-2
Q4008	D-3
Q4009	D-4
Q7401	E-5
Q7402	E-8
Q7404	C-7
Q7405	B-7
Q7406	B-7
Q7503	A-2
Q7505	A-4
Q7506	A-4
Q7507	A-4
Q7508	A-4
Q7511	A-4
Q7512	E-1
Q7517	A-4
Q7518	A-4
Q7519	A-5
Transistor-resistor	
QR3002	D-5
QR3003	D-5
QR4002	D-3
QR4003	D-3
QR4004	D-3
QR4005	D-3
QR4012	D-3
QR7401	F-5
QR7402	F-5
QR7403	F-5
QR7404	F-5
QR7405	E-5
QR7501	C-4

QR7502	C-2
QR7503	A-2
Test Point	
CL7407	C-6
CL7502	D-2
CL7503	C-4
CL7505	C-4
CL7506	C-4
CL7507	C-4
CL7508	D-2
TL7401	D-8
TL7501	A-4
TL7502	A-2
TL7503	C-4
TL7504	C-4
TL7505	B-2
TL7507	C-3
TL7508	A-3
TL7518	B-7
TL7519	B-7
TL7520	A-7
TL7521	C-7
TL7522	D-3
TL7523	C-2
TL7525	B-3
TL7526	B-4
TW7501	B-1
Connector	
JK3001	F-3
JK7501	A-7
P1501	C-2
P1502	C-1
P7402	B-6
P7503	E-1
P7504	A-1
PP7401	F-7
PP7402	F-6
PP7403	F-4
PP7501	D-7
PP7502	E-7
Diode	
D1501	B-2
D4001	D-3
D4005	E-2
D4006	D-4
D7401	F-5
D7402	E-8
D7403	F-5
D7501	B-2
D7502	B-2
D7504	B-2
D7505	B-2
D7506	B-2
D7507	A-4
D7508	C-2
D7512	A-5
Crystal Osillator	
X7501	B-4
X7502	B-4
IC Protector	
IP7501	B-2
Coil	
L1501	C-1
L4002	E-2
L7401	C-5
L7403	D-8
L7502	B-2
LB1501	C-1
LB1503	C-1

LB1504	B-1
LB1505	B-1
LB3002	D-7
LB3003	D-7
LB3004	D-5
LB3005	F-2
LB3006	F-2
LB3007	F-2
LB3008	F-2
LB4001	E-2
LB7402	F-8
LB7404	E-8
LB7405	D-8
LB7406	D-7
LB7407	B-7
LB7408	B-6
LB7409	B-5
LB7410	B-5
LB7501	A-2
LB7502	A-2
LB7503	B-2
LB7504	A-4
LB7506	B-4
LB7507	B-4
LB7508	C-4
LB7509	C-3
LB7510	B-2
LB7511	B-2
LB7512	A-7
LB7513	A-7
LB7514	A-7
LB7515	A-6
LB7516	A-6
Capacitor	
C1503	B-8
C1504	B-8
C1505	B-8
C1512	B-2
C1513	C-2
C1514	C-2
C1515	C-2
C1516	B-6
C1518	B-6
C1519	B-6
C1520	C-2
C1521	C-2
C1522	C-2
C1523	C-5
C1524	B-5
C1527	C-5
C1528	C-5
C1531	C-5
C1533	C-5
C1534	C-5
C1537	C-5
C1539	B-1
C1540	B-1
C1541	D-1
C1543	D-1
C3003	E-7
C3004	D-7
C3005	D-7
C3006	D-7
C3007	D-7
C3009	E-7
C3010	E-7
C3012	E-7
C3013	E-7
C3014	E-7

C3015	E-7
C3016	E-7
C3017	E-7
C3018	D-7
C3019	E-7
C3020	E-7
C3021	E-7
C3022	D-7
C3023	D-6
C3024	E-6
C3025	E-6
C3026	D-6
C3027	E-6
C3028	E-6
C3029	E-6
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C3059	F-2
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C3066	D-5
C3067	D-5
C3069	E-7
C3070	E-6
C3071	E-7
C4003	E-4
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C4006	E-3
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C4021	D-4
C4022	E-4
C4023	C-7
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C4025	C-7
C4026	E-2

C4027	E-5
C4029	E-2
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C4031	E-5
C4033	E-3
C4034	E-3
C4039	E-4
C4040	E-4
C4052	E-3
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C4054	F-2
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C4063	E-3
C4064	D-3
C4065	E-3
C4067	F-2
C4069	F-2
C4070	E-2
C4072	E-2
C4074	E-2
C4075	E-2
C4076	E-2
C4077	E-2
C4082	F-2
C4083	D-3
C4091	E-2
C4092	E-3
C7401	F-5
C7402	E-5
C7403	F-7
C7404	F-7
C7405	F-7
C7406	F-7
C7407	E-7
C7408	D-7
C7409	F-7
C7411	E-8
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C7414	E-8
C7415	D-8
C7416	D-7
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C7419	E-8
C7420	E-8
C7421	E-8
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C7425	D-8
C7426	D-8
C7427	D-7
C7428	F-8
C7429	F-8
C7431	C-7
C7432	C-7
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C7439	F-5
C7440	B-7
C7441	B-7
C7502	C-4
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C7504	B-2

C7507	C-1
C7508	A-4
C7509	A-4
C7511	A-8
C7512	A-6
C7513	A-6
C7514	A-6
C7515	A-6
C7517	C-4
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C7526	A-3
C7527	A-2
C7528	A-3
C7529	A-3
C7546	B-4
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C7566	A-4
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C7590	B-4
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C7596	C-4
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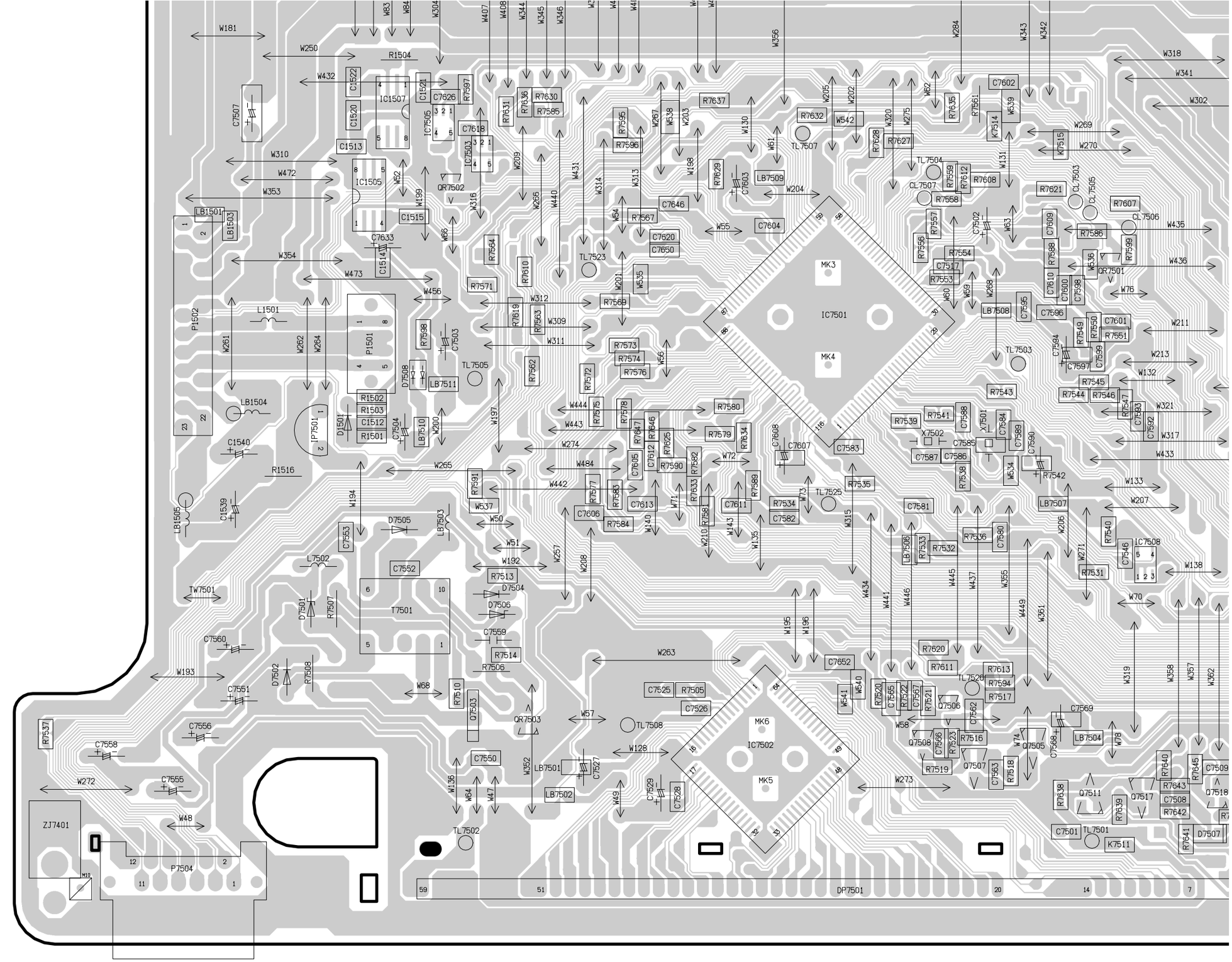
C7608	B-3
C7609	C-4
C7610	C-4
C7611	B-3
C7612	B-3
C7613	B-3
C7618	C-2
C7620	C-3
C7626	C-2
C7633	C-2
C7636	E-1

C7637	E-1
C7639	D-1
C7646	C-3
C7650	C-3
C7652	B-3
Resistor	
R1501	B-2
R1502	B-2
R1503	B-2
R1504	C-2
R1506	B-5
R1507	C-5
R1508	C-5
R1509	C-5
R1510	C-5
R1511	C-5
R1512	C-5
R1515	C-5
R1516	B-2
R3026	E-6
R3027	E-6
R3028	E-6
R3029	D-7
R3030	D-7
R3037	E-7
R3038	E-7
R3044	D-7
R3045	D-7
R3046	D-7
R3047	D-7
R3048	D-5
R3049	D-5
R3050	D-5
R3051	D-6
R3052	D-5
R3053	D-5
R3054	F-3
R3055	F-3
R3056	F-3
R3057	F-3
R3058	F-3
R3059	F-3
R3060	E-7
R4001	E-3
R4002	D-3
R4004	D-3
R4005	D-4
R4006	E-4
R4007	D-4
R4008	E-3
R4009	E-3
R4010	D-4
R4011	D-4
R4012	E-4
R4013	E-3
R4014	D-3
R4015	E-5
R4017	D-2
R4018	E-4
R4019	C-7
R4020	C-7
R4021	E-5
R4022	E-5
R4023	E-5
R4046	E-3
R4047	E-3
R4053	E-4
R4055	E-3
R4056	E-4

R4057	D-3
R4060	E-4
R4061	D-4
R4066	E-2
R4067	E-2
R4070	E-2
R4071	E-3
R4074	D-3
R4076	E-3
R4077	E-3
R4078	F-2
R4079	F-2
R4080	D-3
R4081	D-3
R4087	E-2
R4088	D-3
R4089	D-4
R4090	F-2
R4093	F-2
R4099	F-2
R7401	F-5
R7402	F-5
R7403	F-5
R7404	C-8
R7405	F-5
R7406	E-5
R7407	E-5
R7408	E-5
R7411	C-8
R7412	E-8
R7413	F-8
R7414	F-8
R7415	E-8
R7416	E-8
R7417	C-8
R7418	E-8
R7420	E-8
R7421	C-7
R7422	C-7
R7427	B-7
R7428	C-7
R7429	C-7
R7430	B-7
R7431	C-7
R7432	C-7
R7433	B-7
R7434	C-7
R7435	C-7
R7438	C-6
R7439	C-6
R7440	C-6
R7441	C-6
R7442	C-6
R7444	E-8
R7505	B-3
R7506	B-2
R7507	B-2
R7508	B-2
R7510	B-2
R7513	B-2
R7514	B-2
R7516	A-4
R7517	A-4
R7518	A-4
R7519	A-4
R7520	B-3
R7521	A-4
R7522	A-3
R7523	A-4

R7530	B-5
R7531	B-4
R7532	B-4
R7533	B-4
R7534	B-3
R7535	B-3
R7536	B-4
R7537	A-1
R7538	B-4
R7539	B-3
R7540	B-4
R7541	B-4
R7542	B-4
R7543	B-4
R7544	B-4
R7545	B-4
R7546	B-4
R7547	B-4
R7548	B-8
R7549	C-4
R7550	C-4
R7551	C-4
R7552	B-8
R7553	C-4
R7554	C-4
R7556	C-4
R7557	C-4
R7558	C-4
R7559	C-4
R7561	C-4
R7562	C-2
R7563	C-2
R7564	C-2
R7567	C-3
R7569	C-3
R7571	C-2
R7572	B-2
R7573	C-3
R7574	C-3
R7575	B-3
R7576	C-3
R7577	B-3
R7578	B-3
R7579	B-3
R7580	B-3
R7581	B-3
R7582	B-3
R7583	B-3
R7584	B-3
R7585	C-2
R7586	C-4
R7588	C-4
R7589	B-3
R7590	B-3
R7591	B-2
R7594	B-4
R7595	C-3
R7596	C-3
R7597	C-2
R7598	C-2
R7599	C-4
R7600	E-2
R7601	E-2
R7602	E-1
R7603	E-1
R7604	A-7
R7605	A-7
R7606	A-7
R7607	C-4

R7608	C-4
R7610	C-2
R7611	B-4
R7612	C-4
R7613	B-4
R7617	A-5
R7619	C-2
R7620	B-4
R7621	C-4
R7625	B-3
R7626	A-8
R7627	C-3
R7628	C-3
R7629	C-3
R7630	C-2
R7631	C-2
R7632	C-3
R7633	B-3
R7634	B-3
R7635	C-4
R7636	C-2
R7637	C-3
R7638	A-4
R7639	A-4
R7640	A-4
R7641	A-4
R7642	A-4
R7643	A-4
R7644	A-5
R7645	A-4
R7646	B-3
R7647	B-3
R7671	A-6
R7672	A-6
K7401	E-8
K7508	A-8
K7510	A-8
K7511	A-4
K7514	C-4
K7515	C-4
Transformer	
T7501	B-2


C
B
A
1
2
3
4
IC7501
MK3
MK4
IC7502
MK5
MK6
IC1507
IC1505
IC7505
IC7503
IC7508
IP7501
P1501
P1502
P7504
DP7501
ZJ7401
T7501
L1501
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TW7501
QR7501
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Q7502
Q7503
Q7505
Q7506
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Q7511
Q7517
Q7518
X7501
X7502
D7501
D7502
D7504
D7505
D7506
D7507
D7508
W181
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W472
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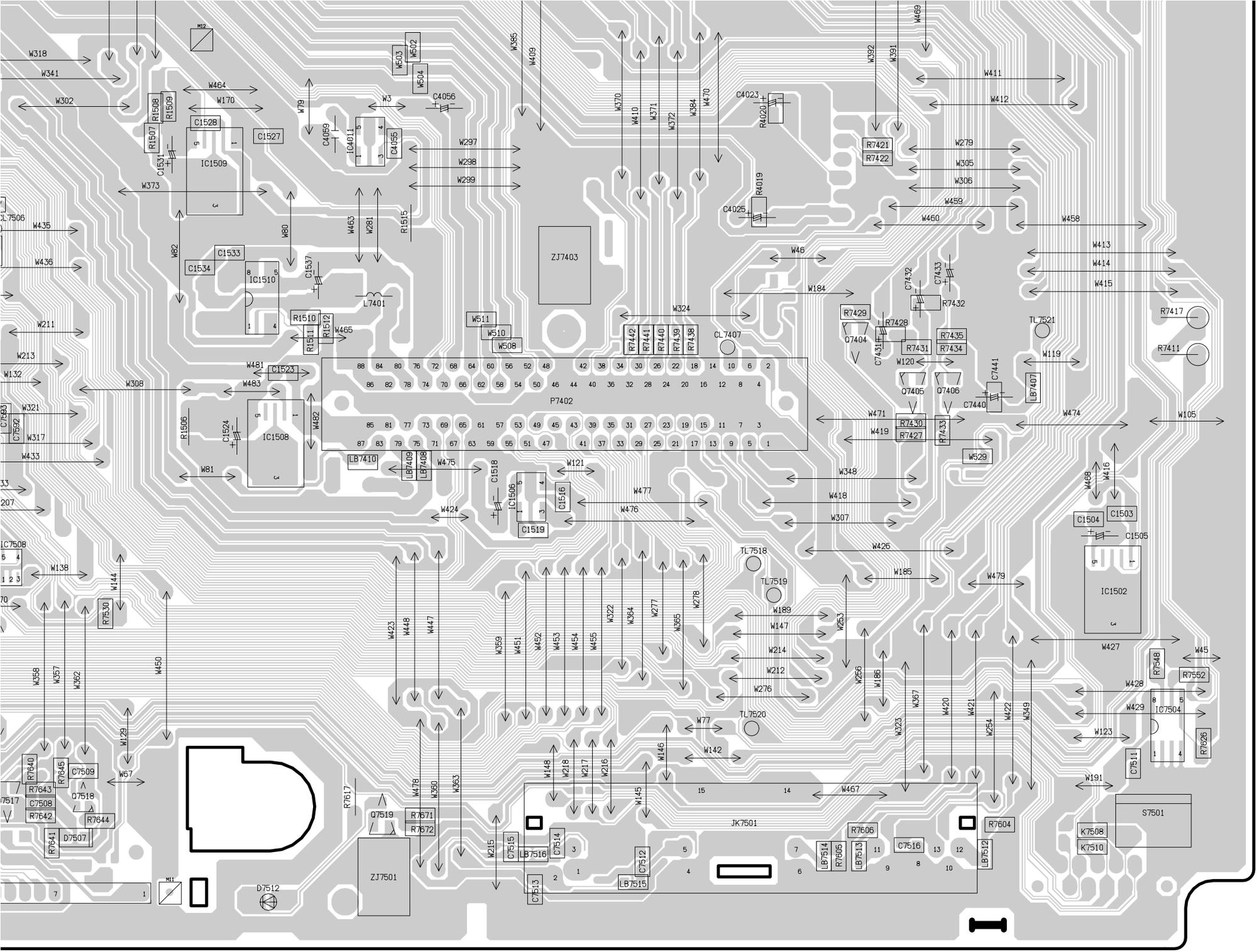
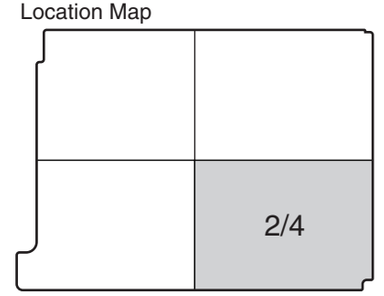
W581
W582



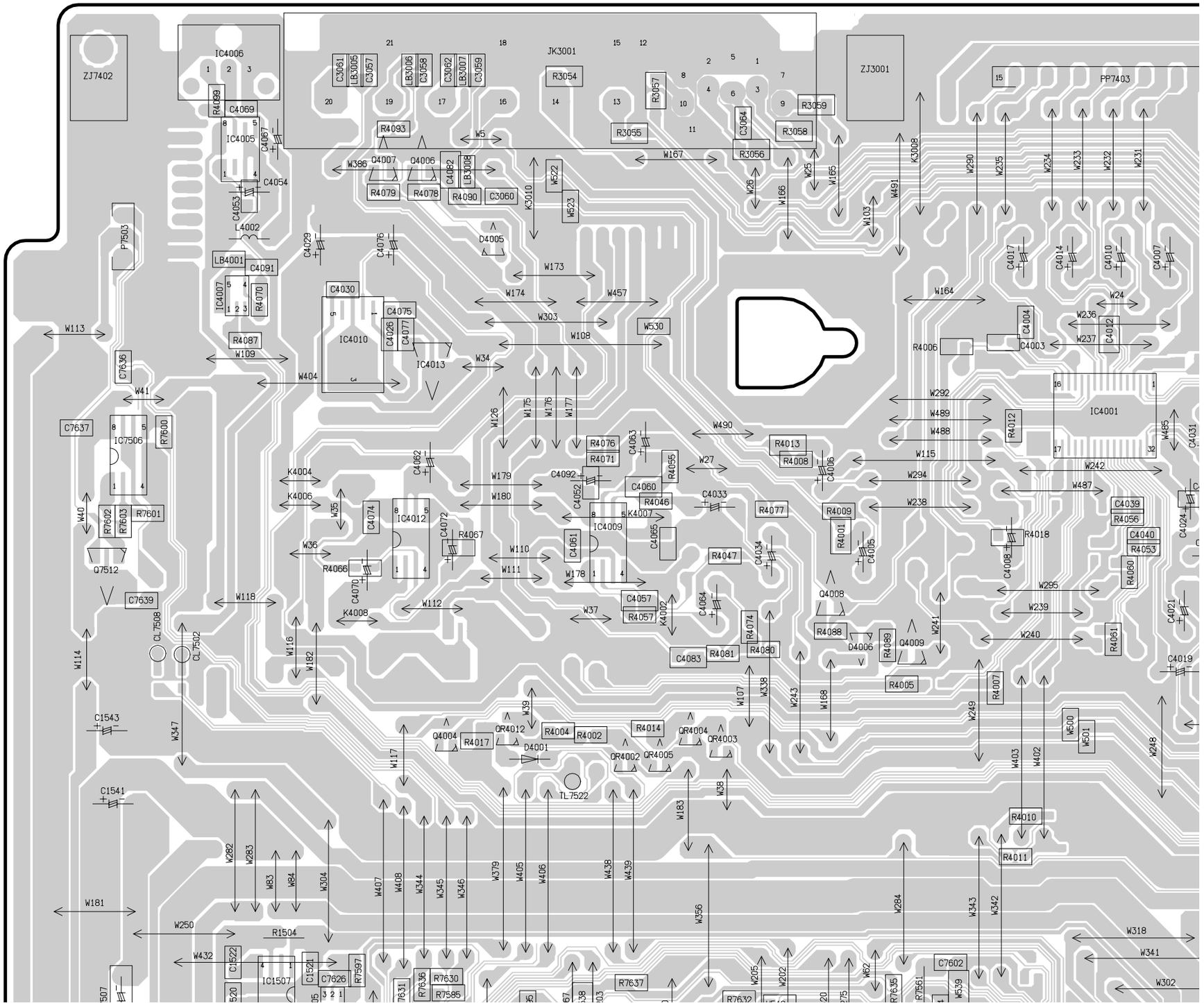
Location Map



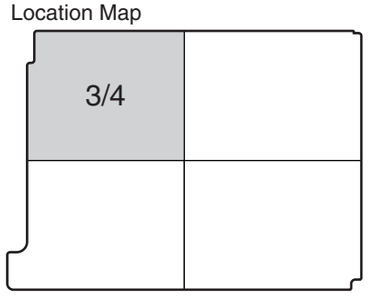
DMR-E85HEP
Main P.C.B. (REP3766C)
(2/4 Section)

5 6 7 8

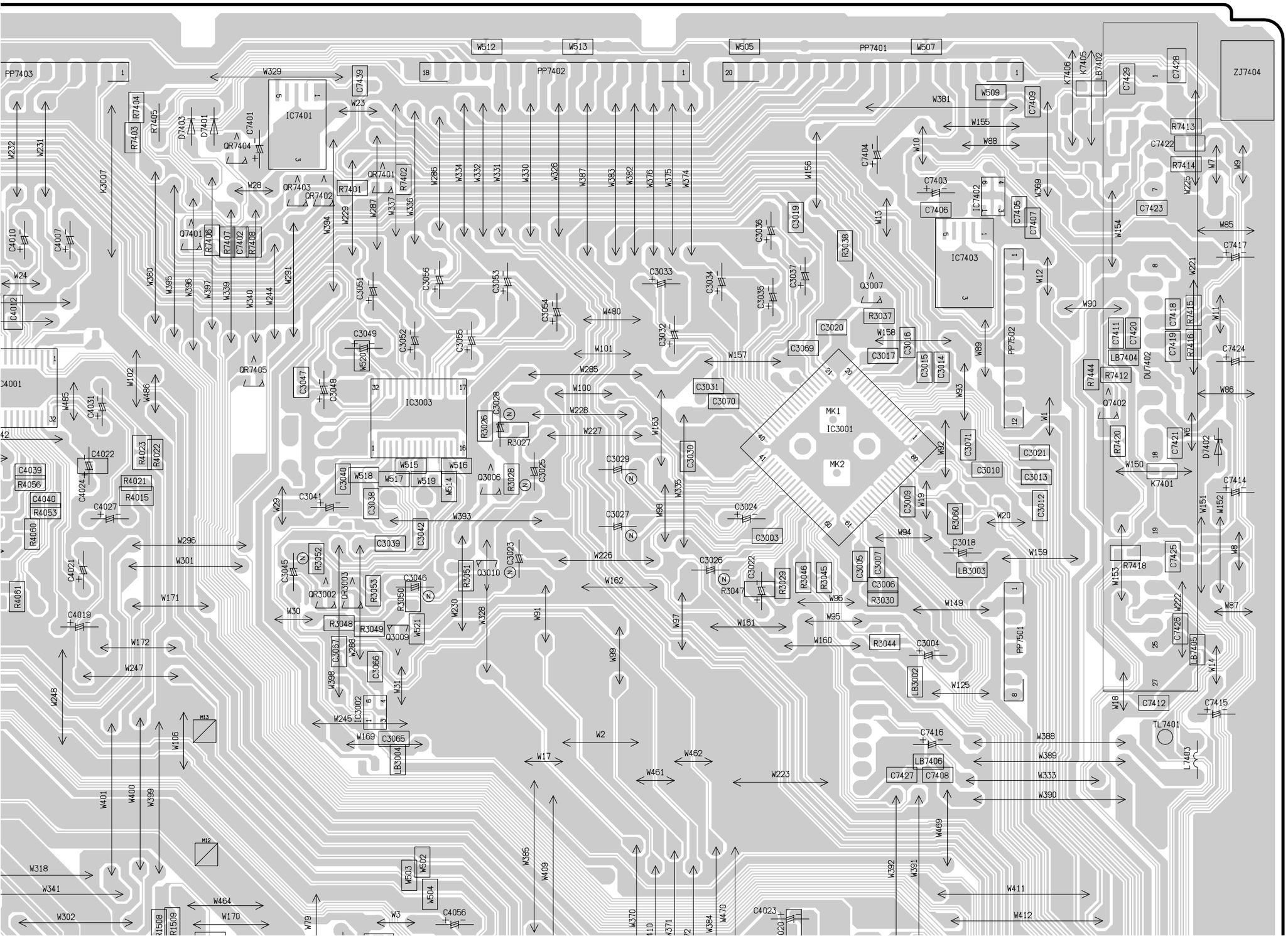
Main P.C.B.



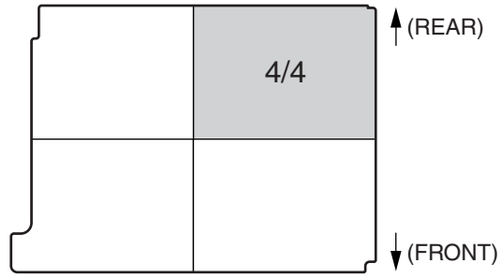
Location Map



DMR-E85HEP
Main P.C.B. (REP3766C)
(3/4 Section)



Location Map



DMR-E85HEP
Main P.C.B. (REP3766C)
(4/4 Section)

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

IC6001
MN2DS0011-H
(AVDEC/MAIN CPU)

TO DIGITAL JIG
P6002
XDIAG
XRESET
MSORX
GND
D3.3V
MSOTX

IC6003
C2CBLD000091
(8Mbit NOR FLASH MEMORY)

IC6004
C0JBAZ001466
(8bit BUFFER/DRIVER)

IC6002
C0EBE0000130
(RESET)

Q6001
B1ABCF000114
(BUFFER)

Q6002
B1ABCF000114
(BUFFER)

IC50001
C3ABPG000133
(16bit/64M SDRAM)

IC50002
C3ABPG000133
(16bit/64M SDRAM)

IC6005
C3ABRG000036
(16bit/128M SDRAM)

IC6006
C3ABRG000036
(16bit/128M SDRAM)

DMR-E85HEP AV Decoder/Main CPU Section(Digital P.C.B.(4/5)) Schematic Diagram(MC)

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

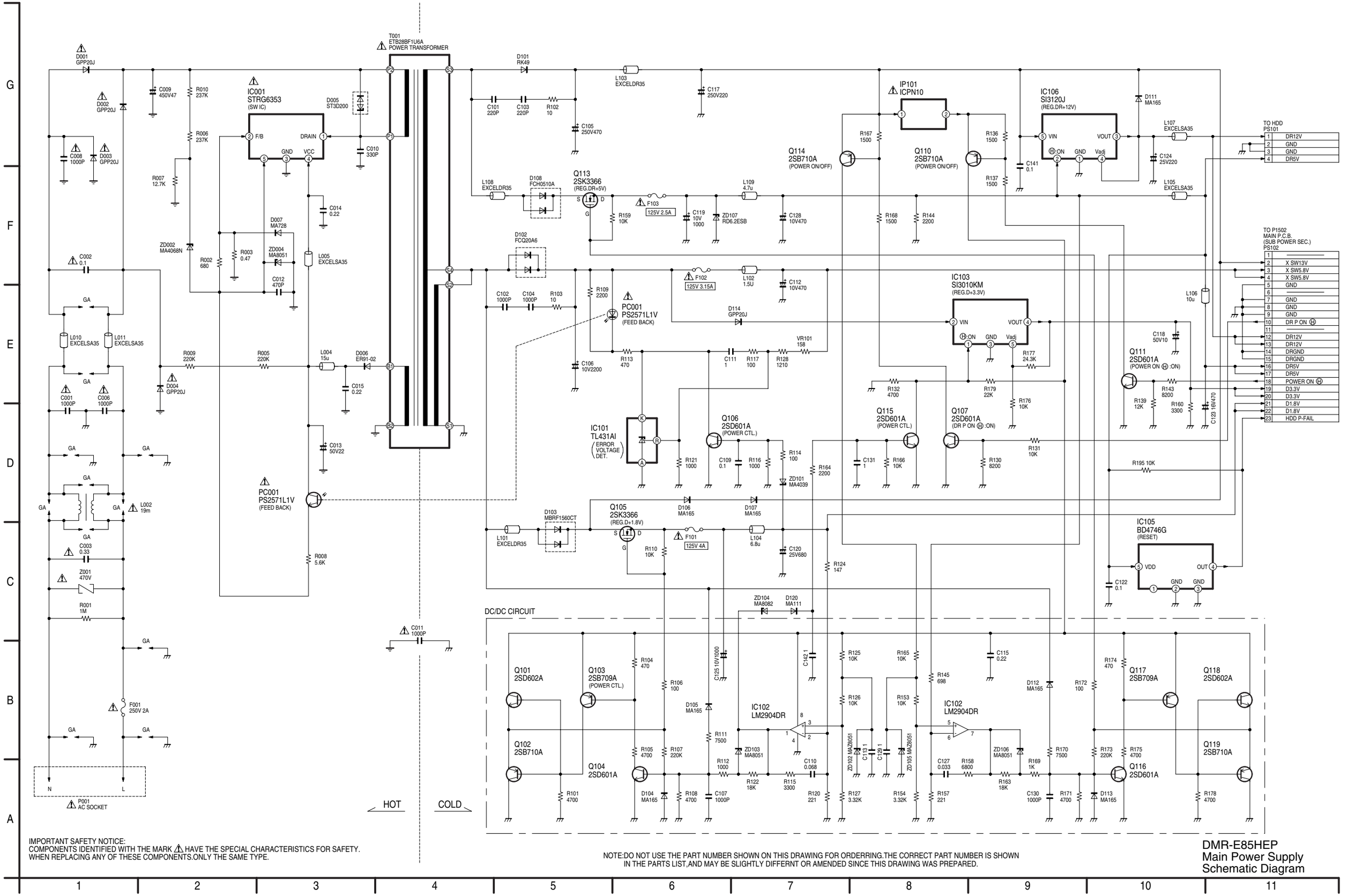
IC6001
MN2DS0011-H
(AVDEC/MAIN CPU)

DMR-E85HEP
AV Decoder/Main CPU Section
(Digital P.C.B.(4/5))
Schematic Diagram(MC)

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP AV Decoder/Main CPU Section(Digital P.C.B.(4/5)) Schematic Diagram(MC)

14 15 16 17 18 19 20 21 22 23 24 25 26

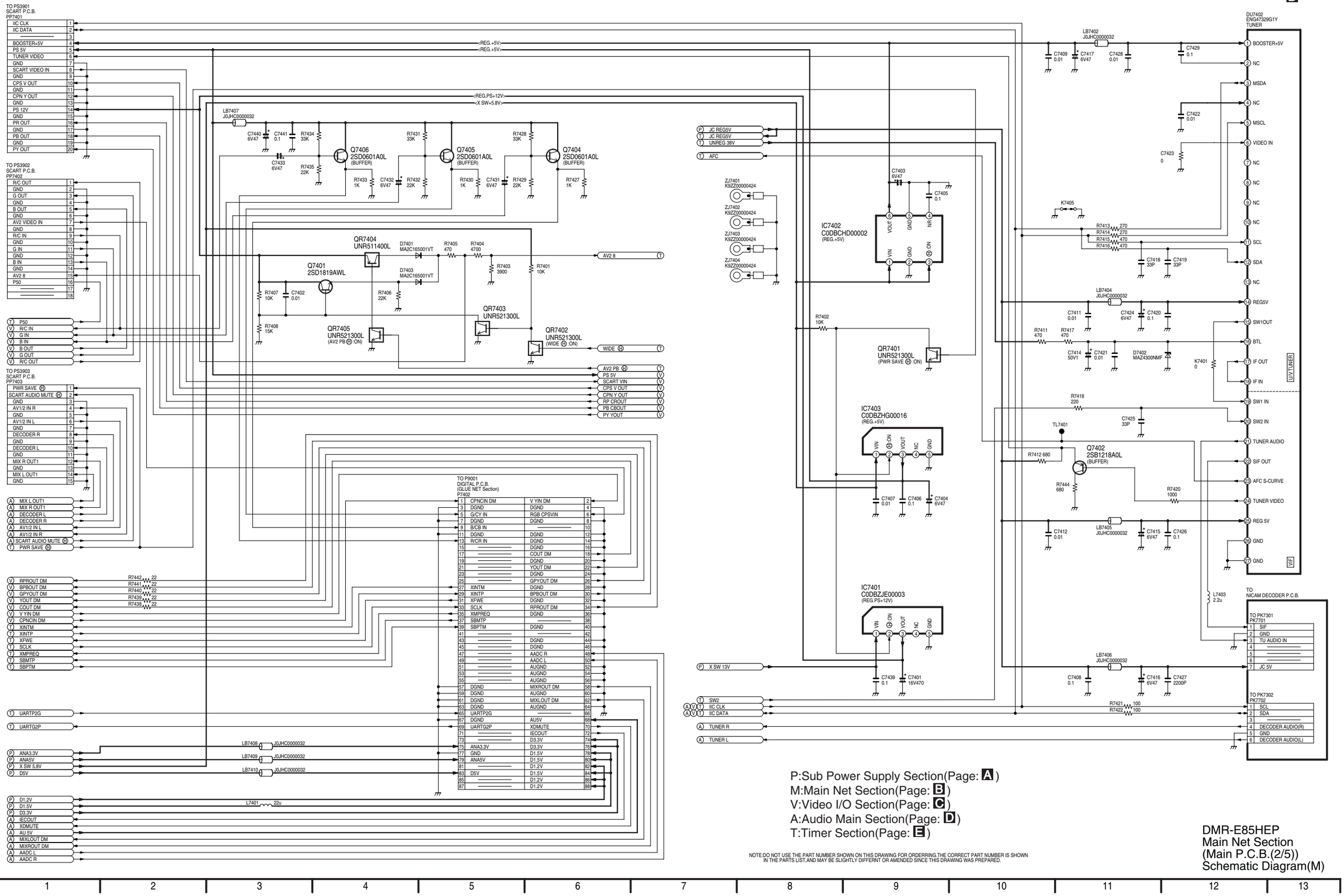

T001
ETB28BF1U6A
POWER TRANSFORMER
IC001
STRG6353
(SW IC)
IC101
TL431AI
(ERROR VOLTAGE DET.)
PC001
PS2571L1V
(FEED BACK)
IP101
ICPN10
IC106
SI3120J
(REG.DR+12V)
IC103
SI3010KM
(REG.D+3.3V)
IC102
LM2904DR
IC105
BD4746G
(RESET)
Q113
2SK3366
(REG.DR+5V)
Q105
2SK3366
(REG.D+1.8V)
Q114
2SB710A
(POWER ON/OFF)
Q110
2SB710A
(POWER ON/OFF)
Q106
2SD601A
(POWER CTL.)
Q115
2SD601A
(POWER CTL.)
Q107
2SD601A
(DR P ON Ⓗ :ON)
Q111
2SD601A
(POWER ON Ⓗ :ON)
Q101
2SD602A
Q102
2SB710A
Q103
2SB709A
(POWER CTL.)
Q104
2SD601A
Q117
2SB709A
Q118
2SD602A
Q119
2SB710A
Q116
2SD601A
DC/DC CIRCUIT
TO HDD
PS101
TO P1502
MAIN P.C.B.
(SUB POWER SEC.)
PS102
HOT
COLD
P001
AC SOCKET
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN
IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E85HEP
Main Power Supply
Schematic Diagram

Ref No.	IC7301																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.5	2.5	5.0	0	0	4.9	0	0	0	0.2	0	0.1	0	1.6	1.5	0	0	2.0	0	0
PLAY	2.5	2.5	5.0	0	0	4.9	0	0	0	0.3	0	0.3	0	1.6	1.5	0	0	2.0	0	0
STOP	2.5	2.5	5.0	0	0	4.9	0	0	0	0.3	0	0.2	0	1.6	1.5	0	0	2.0	0	0

Ref No.	IC7301																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	3.3	0	2.0	2.0	2.0	4.9	0	5.0	4.5	4.2	0.3	0.2	0.2	0.2	5.0	0	4.9	2.5	2.5	2.5
PLAY	3.3	0	2.0	2.0	2.0	4.9	0	5.0	4.5	4.2	0.3	0	0.2	0.2	5.0	0	4.9	2.5	2.5	2.5
STOP	3.3	0	2.0	2.0	2.0	4.9	0	5.0	4.5	4.2	0.3	0.3	0.3	0.2	5.0	0	4.9	2.5	2.5	2.5

Ref No.	IC7301																			
MODE	41	42	43	44																
REC	2.5	4.9	2.5	0																
PLAY	2.5	4.9	2.5	0																
STOP	2.5	4.9	2.5	0																

Ref No.	IC7302																			
MODE	1	2	3																	
REC	5.0	0	4.9																	
PLAY	5.0	0	4.9																	
STOP	5.0	0	4.9																	


B
TO PS3901
SCART P.C.B.
PP7401
IIC CLK 1
IIC DATA 2
3
BOOSTER+5V 4
PS 5V 5
TUNER VIDEO 6
GND 7
SCART VIDEO IN 8
GND 9
CPS V OUT 10
GND 11
CPN Y OUT 12
GND 13
PS 12V 14
GND 15
PR OUT 16
GND 17
PB OUT 18
GND 19
PY OUT 20
TO PS3902
SCART P.C.B.
PP7402
R/C OUT 1
GND 2
G OUT 3
GND 4
B OUT 5
GND 6
AV2 VIDEO IN 7
GND 8
R/C IN 9
GND 10
G IN 11
GND 12
B IN 13
GND 14
AV2 8 15
P50 16
17
18
T P50
V R/C IN
V G IN
V B IN
V B OUT
V G OUT
V R/C OUT
TO PS3903
SCART P.C.B.
PP7403
PWR SAVE H 1
SCART AUDIO MUTE H 2
GND 3
AV1/2 IN R 4
GND 5
AV1/2 IN L 6
GND 7
DECODER R 8
GND 9
DECODER L 10
GND 11
MIX R OUT1 12
GND 13
MIX L OUT1 14
GND 15
A MIX L OUT1
A MIX R OUT1
A DECODER L
A DECODER R
A AV1/2 IN L
A AV1/2 IN R
A SCART AUDIO MUTE H
T PWR SAVE H
V RPROUT DM
V BPBOUT DM
V GPYOUT DM
V YOUT DM
V COUT DM
V Y YIN DM
V CPNCIN DM
T XINTM
T XINTP
T XFWE
T SCLK
T XMPREQ
T SBMTP
T SBPTM
T UARTP2G
T UARTG2P
P ANA3.3V
P ANA5V
P X SW 5.8V
P D5V
P D1.2V
P D1.5V
P D3.3V
A IECOUT
A XDMUTE
A AU 5V
A MIXLOUT DM
A MIXROUT DM
A AADC L
A AADC R
<REG.+5V>
<REG.+5V>
<REG.PS+12V>
<X SW+5.8V>
LB7407 J0JHC0000032
C7440 6V47
C7441 0.1
C7433 6V47
R7434 33K
R7435 22K
Q7406 2SD0601A0L (BUFFER)
R7433 1K
C7432 6V47
R7432 22K
R7431 33K
Q7405 2SD0601A0L (BUFFER)
R7430 1K
C7431 6V47
R7429 22K
R7428 33K
Q7404 2SD0601A0L (BUFFER)
R7427 1K
QR7404 UNR511400L
Q7401 2SD1819AWL
D7401 MA2C165001VT
D7403 MA2C165001VT
R7405 470
R7404 4700
R7403 3900
R7401 10K
R7407 10K
C7402 0.01
R7406 22K
R7408 15K
QR7405 UNR521300L (AV2 PB H:ON)
QR7403 UNR521300L
QR7402 UNR521300L (WIDE H:ON)
AV2 8
WIDE H
AV2 PB H
PS 5V
SCART VIN
CPS V OUT
CPN Y OUT
RP CROUT
PB CBOUT
PY YOUT
TO P9001
DIGITAL P.C.B.
(GLUE NET Section)
P7402
1 CPNCIN DM V YIN DM 2
3 DGND DGND 4
5 G/CY IN RGB CPSVIN 6
7 DGND DGND 8
9 B/CB IN 10
11 DGND DGND 12
13 R/CR IN DGND 14
15 DGND 16
17 COUT DM 18
19 DGND 20
21 YOUT DM 22
23 DGND 24
25 GPYOUT DM 26
27 XINTM DGND 28
29 XINTP BPBOUT DM 30
31 XFWE DGND 32
33 SCLK RPROUT DM 34
35 XMPREQ DGND 36
37 SBMTP 38
39 SBPTM DGND 40
41 42
43 DGND 44
45 DGND 46
47 AADC R 48
49 AADC L 50
51 AUGND 52
53 AUGND 54
55 AUGND 56
57 DGND MIXROUT DM 58
59 DGND AUGND 60
61 DGND MIXLOUT DM 62
63 DGND AUGND 64
65 UARTP2G 66
67 DGND AU5V 68
69 UARTG2P XDMUTE 70
71 IECOUT 72
73 D3.3V 74
75 ANA3.3V D3.3V 76
77 GND D1.5V 78
79 ANA5V D1.5V 80
81 D1.2V 82
83 D5V D1.5V 84
85 D1.2V 86
87 D1.2V 88
R7442 22
R7441 22
R7440 22
R7439 22
R7438 22
LB7408 J0JHC0000032
LB7409 J0JHC0000032
LB7410 J0JHC0000032
L7401 22u
P JC REG5V
T JC REG5V
T UNREG 38V
T AFC
ZJ7401 K9ZZ00000424
ZJ7402 K9ZZ00000424
ZJ7403 K9ZZ00000424
ZJ7404 K9ZZ00000424
C7403 6V47
C7405 0.1
IC7402 C0DBCHD00002 (REG.+5V)
VOUT GND NR
VIN GND H:ON
R7402 10K
QR7401 UNR521300L (PWR SAVE H:ON)
IC7403 C0DBZHG00016 (REG.+5V)
VIN H:ON VOUT NC GND
C7407 0.01
C7406 0.1
C7404 6V47
IC7401 C0DBZJE00003 (REG.PS+12V)
VIN H:ON VOUT NC GND
C7439 0.1
C7401 16V470
P X SW 13V
T SW2
A IIC CLK
A IIC DATA
A TUNER R
A TUNER L
DU7402 ENG47329G1Y TUNER
LB7402 J0JHC0000032
C7409 0.01
C7417 6V47
C7428 0.01
C7429 0.1
C7422 0.01
C7423 0
K7405
R7413 270
R7414 270
R7415 470
R7416 470
C7418 33P
C7419 33P
LB7404 J0JHC0000032
C7411 0.01
C7424 6V47
C7420 0.1
R7411 470
R7417 470
C7414 50V1
C7421 0.01
D7402 MAZ4300NMF
K7401 0
R7418 220
C7425 33P
TL7401
Q7402 2SB1218A0L (BUFFER)
R7412 680
R7444 680
R7420 1000
C7412 0.01
LB7405 J0JHC0000032
C7415 6V47
C7426 0.1
LB7406 J0JHC0000032
C7408 0.1
C7416 6V47
C7427 2200P
R7421 100
R7422 100
1 BOOSTER+5V
2 NC
3 MSDA
4 NC
5 MSCL
6 VIDEO IN
7 NC
8 NC
9 NC
10 NC
11 SCL
12 SDA
13 NC
14 REG5V
15 SW1OUT
16 BTL
17 IF OUT
18 IF IN
19 SW1 IN
20 SW2 IN
21 TUNER AUDIO
22 SIF OUT
23 AFC S-CURVE
24 TUNER VIDEO
25 REG 5V
26 GND
27 GND
U/V TUNER
VIF
L7403 2.2u
TO NICAM DECODER P.C.B.
TO PK7301 PK7701
1 SIF
2 GND
3 TU AUDIO IN
4
5
6
7 JC 5V
TO PK7302 PK7702
1 SCL
2 SDA
3
4 DECODER AUDIO(R)
5 GND
6 DECODER AUDIO(L)
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E85HEP
Main Net Section
(Main P.C.B.(2/5))
Schematic Diagram(M)
H
G
F
E
D
C
B
A
1 2 3 4 5 6 7 8 9 10 11 12 13

POWER P.C.B.

MAIN P.C.B.

AC SOCKET
P001

F001
250V2A

Z001,L002
SURGE SUPPRESSOR AND SURGE ABSORBER

D001-D004
C009
RECTIFIER

T001
POWER TRANSFORMER

IC001
(SW IC)
F/B
DRAIN
Z/C
VCC

D101

IP101

Q110
Ⓛ:ON

D103

Q105
(REG.D+1.8V)

F101
125V 4A

D+1.8V
PS102 P1502
21,22

IC103
(REG.D+3.3V)
Ⓗ:ON
VIN
VOUT
Vadj

D106
D107

D+3.3V
PS102 P1502
19,20

D102

Q115

D120
ZD104

POWER ON Ⓗ
PS102 P1502
18

Q111
Ⓗ:ON

F102
125V 3.2A

X SW+5.8V
PS102 P1502
3,4

C011

Q114
Ⓛ:ON

DC-DC CIRCUIT
IC102
Q101-Q104
Q116-Q119

Q107
Ⓛ:ON

DR P ON Ⓗ
PS102 P1502
10
IC7501- 86

IC106
(REG.DR+12V)
VIN
Ⓗ:ON
VOUT
Vadj

DR+12V
PS102 P1502
12,13
P1501 P102
1,8
(TO DVD RAM DRIVE)

Q106

X SW+13V
PS102 P1502
2

IC101
(ERROR VOLTAGE DET.)

PC001
FEED BACK

D108

Q113
(REG.DR+5V)

F103
125V 2.5A

DR+5V
PS102 P1502
16,17
P1501 P102
4,5
(TO DVD RAM DRIVE)

PS101
1
PS101
4
TO HDD

Q105
(RESET)
VDD
OUT

PS102 P1502
23
HDD P-FAIL Ⓛ
IC7501- 75

HOT

COLD

DMR-E85HEP
Power Supply Block Diagram

MAIN P.C.B.

DIGITAL P.C.B.

IC1509
(REG.D+1.2V)
VIN ① VOUT ③
VB ②

IC1510
(REG.D+1.5V)
VIN ⑦
VIN ⑧
VB ③ CONT ④
VOUT ①

Ⓐ D+1.8V

IC7505
(SYS PFAIL Ⓛ OUT)
VDD ② OUT ①

Ⓗ:ON

QR7502
(SYS PFAIL Ⓗ OUT)

IC7501- ㊽

Ⓑ D+3.3V

REG.D+1.2V — P7402 | P9001 — 82,86,88 → IC6001(+1.2V)

REG.D+1.5V — P7402 | P9001 — 78,80,84 → IC3404/IC3501(+1.5V)

D+3.3V — P7402 | P9001 — 74,76 → IC3401/IC3402/IC3404/IC3408/ IC3501/IC3502/IC4407/IC4408/ IC6001/IC6002/IC6003/IC6004/ IC6005/IC6006/IC50001/ IC50002/IC6701/IC6703(+3.3V)

Ⓒ POWER ON Ⓗ

IC1508
(REG.ANA+3.3V)
VIN ① VOUT ③
Ⓗ:ON ②

Ⓓ X SW+5.8V

REG.ANA+5V — P7402 | P9001 — 79 → IC3401(+5V)

REG.ANA+3.3V — P7402 | P9001 — 75 → IC3401/IC3404/IC6001(+3.3V)

(Audio Main Sec.)

IC4011
(REG.AU+5V)
VIN ④ VOUT ⑤
Ⓗ:ON ③

REG.AU+5V — P7402 | P9001 — 68

(Timer Sec.)

IC7503
(RESET)
VDD ② OUT ①

IC7501- ㊽

IC4409
(REG.DAC+3.3V)
VIN ① VOUT ⑥
Ⓗ:ON ③

IC4404/IC4406(+3.3V)

IC4404/IC4405/IC4406(+5V)

IC1502
(REG.JC+5V)
VIN ① VOUT ③
Ⓗ:ON ②

JC REG+5V → DU7402- ⑭/㉕, IC3002- ③, IC3003- ⑥/⑪

JC P ON Ⓗ → IC7501- ㊾

IC1507
(REG.D+5V)
VIN ⑧ VOUT ①
CONT ⑤

REG.D+5V — P7402 | P9001 — 83

IC4005- ⑧ /IC4006- ② / IC4007- ①, ⑤

IC3409
(REG.D+3.3V)
VIN ③ VOUT ④
STBY ①

IC3406(+3.3V)

IC1506
(REG.ANA+5V)
VIN ④ VOUT ⑤
Ⓗ:ON ③

D7508

IC1505
(REG.XSW+5.2V)
VIN ⑧
CONT ⑤
VOUT ①

N SW+5V → IC7501/ IC7502/ IC7504

N SW+5V → IC7501

IC7508
(RESET)
VDD ⑤ OUT ④

IC7501- ⑪

NICAM DECODER P.C.B.

IC7301- ⑥/㉟

IC7302
(RESET)
VDD ① OUT ③

IC7301- ㉖

IP7501 ① ②

T7501
(DISPLAY REG.)
④ ⑥

UNREG+38V → TO DU7402- ⑯

(Timer Sec.)

POWER ON Ⓗ → IC7501- ㊽

REG.JC+5V — PK7701 | PK7301 — 7

Ⓔ X SW+13V

IC7506- ⑧ /Q7512- ②

IC4010
(REG.AU+12V)
VIN ① VOUT ③
Ⓗ:ON ②

IC4013
(REG.AU+9V)
VIN ③ VOUT ①

IC4001- ㉚

IC4009/IC4012- ⑧

(Audio Main Sec.)

IC7402
(REG.+5V)
VIN ①
Ⓗ:ON ③
VOUT ⑥

DU7402- ①

BOOSTER +5V — PP7401 | PS3901 — 4 → IC3901- ㉙

IC7403
(REG.+5V)
VIN ①
Ⓗ:ON ②
VOUT ③

PS+5V → IC3001(+5.0V)

REG.+5V — PP7401 | PS3901 — 5 → IC3901- ㉔

QR7401
Ⓗ:ON

PWR SAVE Ⓗ → IC7501- ㊽

PS+12V — PP7401 | PS3901 — 14 → IC3901- ⑭

IC7401
(REG.PS+12V)
VIN ①
Ⓗ:ON ②
VOUT ③

SCART P.C.B.

(Main Net Sec.)

DMR-E85HEP
Power Supply Block Diagram

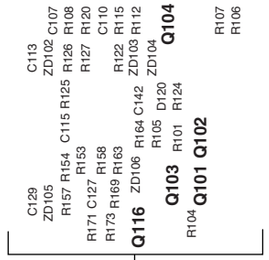
DMR-E85HEP
Power Supply Block Diagram

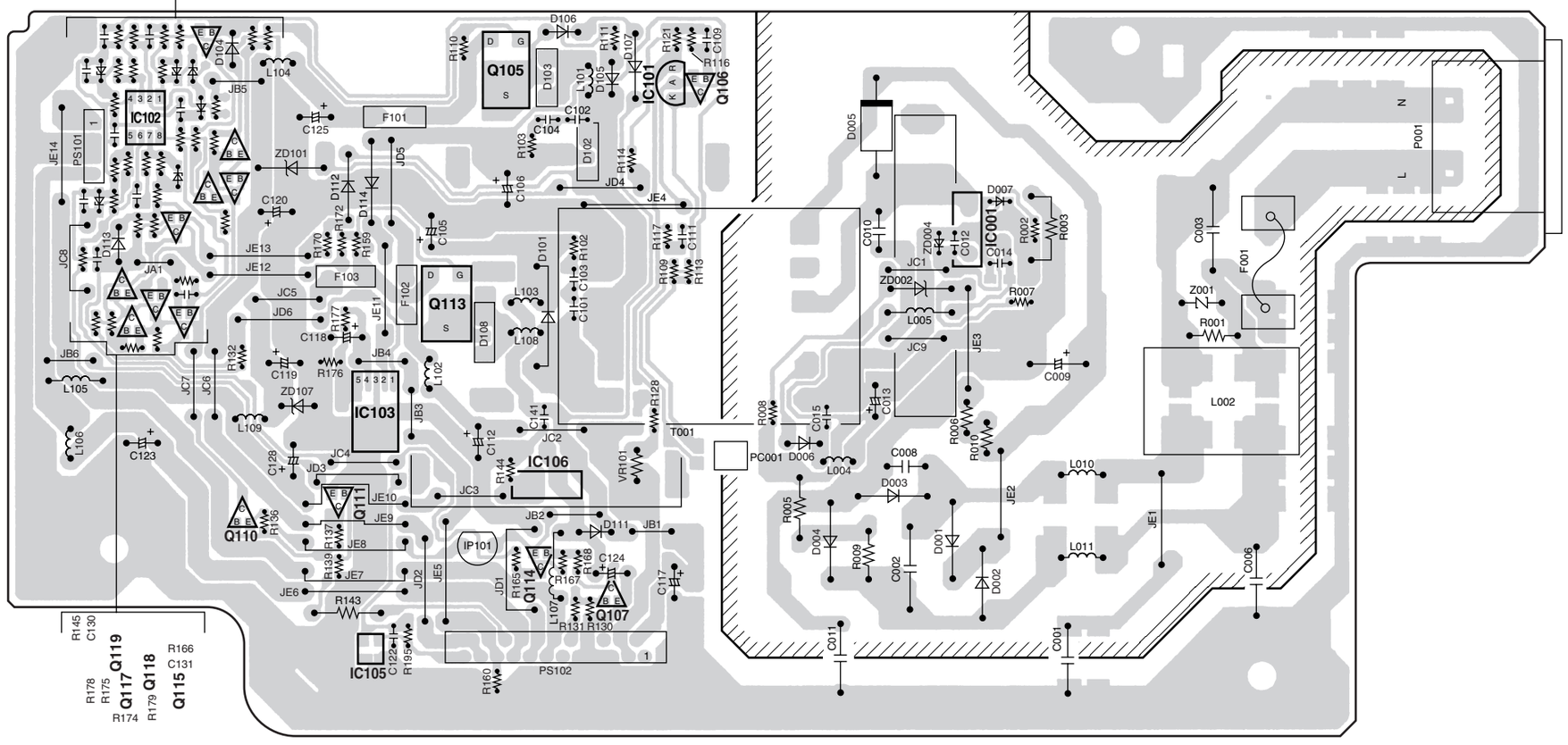
Ref No.	IC1						IC101				IC102								
MODE	1	2	3	4	5		A	K	R		1	2	3	4	5	6	7	8	
REC	-810	0.1	0	16.1	0.3		0	4.3	2.4		4.3	1.2	1.2	0	1.2	1.2	5.3	13.5	
PLAY	-810	0.1	0	16.0	0.3		0	4.3	2.4		4.3	1.2	1.2	0	1.2	1.2	5.3	13.5	
STOP	-810	0.1	0	16.0	0.3		0	4.3	2.4		4.4	1.2	1.2	0	1.2	1.2	5.3	13.6	
Ref No.	IC103						IC105						IC106						
MODE	1	2	3	4	5		1	2	3	4	5		1	2	3	4	5		
REC	2.3	5.1	0	3.5	1.0		0	0	0	4.9	5.1		0	5.1	12.0	12.0	13.6		
PLAY	2.3	5.1	0	3.5	1.0		0	0	0	4.9	5.1		0	5.1	12.0	12.0	13.5		
STOP	2.3	5.1	0	3.5	1.0		0	0	0	4.9	5.1		0	5.1	12.0	12.0	13.7		
Ref No.	Q101				Q102			Q103				Q104				Q105			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		S	D	G
REC	8.6	13.6	8.7		8.5	0	8.7		13.5	8.7	13.1		0	4.9	0.4		3.7	2.2	8.6
PLAY	8.5	13.5	8.6		8.5	0	8.5		13.5	8.6	13.0		0	4.9	0.4		3.7	2.2	8.5
STOP	8.6	13.5	8.6		8.5	0	8.6		13.5	8.6	13.0		0	4.9	0.4		3.7	2.2	8.6
Ref No.	Q106				Q107			Q110				Q111				Q113			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		S	D	G
REC	0	4.3	0		0	0.1	0.7		13.5	13.6	12.8		0	0.1	0.7		7.1	5.1	8.5
PLAY	0	4.3	0		0	0.1	0.7		13.5	13.5	12.8		0	0.1	0.7		7.1	5.1	8.5
STOP	0	4.3	0		0	0.1	0.7		13.5	13.7	12.9		0	0.1	0.7		7.1	5.1	8.5
Ref No.	Q114				Q115			Q116				Q117				Q118			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B
REC	13.5	13.6	12.9		0	2.3	0		0	4.9	0.4		13.6	8.5	13.0		8.5	13.6	8.5
PLAY	13.5	13.5	12.8		0	2.3	0		0	4.9	0.4		13.5	8.4	13.0		8.4	13.5	8.4
STOP	13.5	13.5	12.8		0	2.3	0		0	4.9	0.4		13.5	8.4	13.0		8.4	13.5	8.4
Ref No.	Q119																		
MODE	E	C	B																
REC	8.4	0	8.5																
PLAY	8.4	0	8.5																
STOP	8.4	0	8.4																

Power P.C.B.

Power P.C.B.

Integrated Circuit		Connector		ZD2	C-5	L106	B-1	C103	C-3	Resistor		R117	B-4	R166	C-2
IC1	C-5	P1	D-7	ZD4	C-4	L107	B-3	C104	D-3	R1	C-6	R120	D-2	R167	B-3
IC101	D-4	PS101	C-1	ZD101	C-2	L108	C-3	C105	C-3	R2	C-5	R121	D-4	R168	B-3
IC102	D-2	PS102	A-3	ZD102	D-1	L109	B-2	C106	C-3	R3	C-5	R122	D-2	R169	C-2
IC103	B-3	Diode		ZD103	D-2	Fuse		C107	D-1	R5	B-4	R124	D-2	R170	C-2
IC105	A-2	D1	B-5	ZD104	D-2	F1	C-6	C109	D-4	R6	B-5	R125	D-1	R171	C-2
IC106	B-3	D2	B-5	ZD105	C-1	F101	D-3	C110	D-2	R7	C-5	R126	D-1	R172	C-2
		D3	B-5	ZD106	C-2	F102	C-3	C111	B-4	R8	B-4	R127	D-2	R173	C-2
Transistor		D4	B-4	ZD107	B-2	F103	C-2	C112	B-3	R9	B-4	R128	B-4	R174	C-2
Q101	C-2	D5	D-4					C113	D-1	R10	B-5	R130	B-3	R175	C-1
Q102	C-2	D6	B-4					C115	D-1	R101	C-2	R131	B-3	R176	B-2
Q103	C-2	D7	C-5	IC Protector		Capacitor		C117	B-4	R102	C-3	R132	C-2	R177	C-2
Q104	D-2	D101	C-3	IP101	B-3	C1	A-5	C118	C-2	R103	C-3	R136	B-2	R178	C-1
Q105	D-3	D102	C-3	Transformer		C2	B-5	C119	C-2	R104	C-2	R137	B-2	R179	C-2
Q106	D-4	D103	D-3	T1	B-4	C3	C-6	C120	C-2	R105	D-2	R139	B-2	R195	A-3
Q107	B-3	D104	D-2	Coil		C6	B-6	C122	A-3	R106	D-2	R143	B-2	VR101	B-4
Q110	B-2	D105	D-3	L2	B-6	C8	B-5	C123	B-2	R107	D-2	R144	B-3		
Q111	B-2	D106	D-3	L4	B-4	C9	C-5	C124	B-3	R108	D-1	R145	C-1		
Q113	C-3	D107	D-4	L5	C-5	C10	C-5	C125	D-2	R109	C-4	R153	C-2		
Q114	B-3	D108	C-3	L10	B-5	C11	A-4	C127	C-2	R110	D-3	R154	C-1		
Q115	C-2	D111	B-3	L11	B-5	C12	C-5	C128	B-2	R111	D-3	R157	C-1		
Q116	C-2	D112	C-2	L101	D-3	C13	B-4	C129	C-1	R112	D-2	R158	C-2		
Q117	C-2	D113	C-1	L102	C-3	C14	C-5	C130	C-1	R113	C-4	R159	C-2		
Q118	C-2	D114	C-2	L103	C-3	C15	B-4	C131	C-2	R114	C-3	R160	A-3		
Q119	C-1	D120	D-2	L104	D-2	C101	C-3	C141	B-3	R115	D-2	R163	C-2		
PC1	B-4	Z1	C-6	L105	C-1	C102	D-3	C142	D-2	R116	C-4	R164	D-2		





DMR-E85HEP
Power P.C.B.
(ETXMM507E4F)

TO PP7401
MAIN P.C.B.
(MAIN NET SEC.)
PS3901

IIC CLK	1	B1
IIC DATA	2	B2
	3	
BOOSTER+5V	4	
PS 5V	5	
TUNER VIDEO	6	B3
GND	7	
SCART VIDEO IN	8	B4
GND	9	
CPS V OUT	10	B5
GND	11	
CPN Y OUT	12	B6
GND	13	
PS 12V	14	
GND	15	
PR OUT	16	B7
GND	17	
PB OUT	18	B8
GND	19	
PY OUT	20	B9

R3914 150
R3919 150

TO PP7402
MAIN P.C.B.
(MAIN NET SEC.)
PS3902

R/C OUT	1	A1
GND	2	
G OUT	3	A2
GND	4	
B OUT	5	A3
GND	6	
AV2 VIDEO IN	7	A4
GND	8	
R/C IN	9	A5
GND	10	
G IN	11	A6
GND	12	
B IN	13	A7
GND	14	
AV2 8	15	A8
P50	16	A9
	17	B10
	18	B11

TO PP7403
MAIN P.C.B.
(MAIN NET SEC.)
PS3903

PWR SAVE Ⓗ	1	B12
SCART AUDIO MUTE Ⓗ	2	B13
GND	3	
AV1/2 IN R	4	A10
GND	5	
AV1/2 IN L	6	A11
GND	7	
DECODER R	8	B14
GND	9	
DECODER L	10	B15
GND	11	
MIX R OUT1	12	B16
GND	13	
MIX L OUT1	14	B17
GND	15	

LB3922 J0JGC0000020
LB3923 J0JGC0000020
LB3925 J0JGC0000020

IC3901
C1AB00001776
(A/V BUFFER AND SWITCH)

<BOOSTER+5V>
<PS+5V>
<PS+12V>

R3908 470
R3909 470
C3910 16V10
C3911 16V10
C3914 50V1
C3915 50V1
C3916 50V1
C3917 50V1
C3920 0.1
C3921 6V330
C3918 16V10
C3919 16V10
R3980 470
R3979 470
C3922 0.01
C3923 0.1
C3924 6V330
C3925 0.01

GAIN CTL (0,2,4,6dB)
100K
AMP
BUF
LPF
EXTEMAL CONTROL4
ALWAYS VCC (5V±0.5V)
CLAMP
75 DR
6dB AMP
CONTROL VCC (5V±0.5V)

AUDIO SWITCH Rch
AUDIO SWITCH Lch
SW1R
SW2R
SW3R
SW1L
SW2L
SW3L
A
B
C
D
MUTE
Rch
Lch
OR
SERIAL CONTROL
VIDEO SWITCH
SW1
SW2
SW3

EXT MUTE CONTROL
(HLCH ◄► SW3B)
OPEN LOW ◄► NORMAL1

POWER SAVE
(HLCH ◄► SW3B)
OPEN LOW ◄► NORMAL1
VIDEO SW3

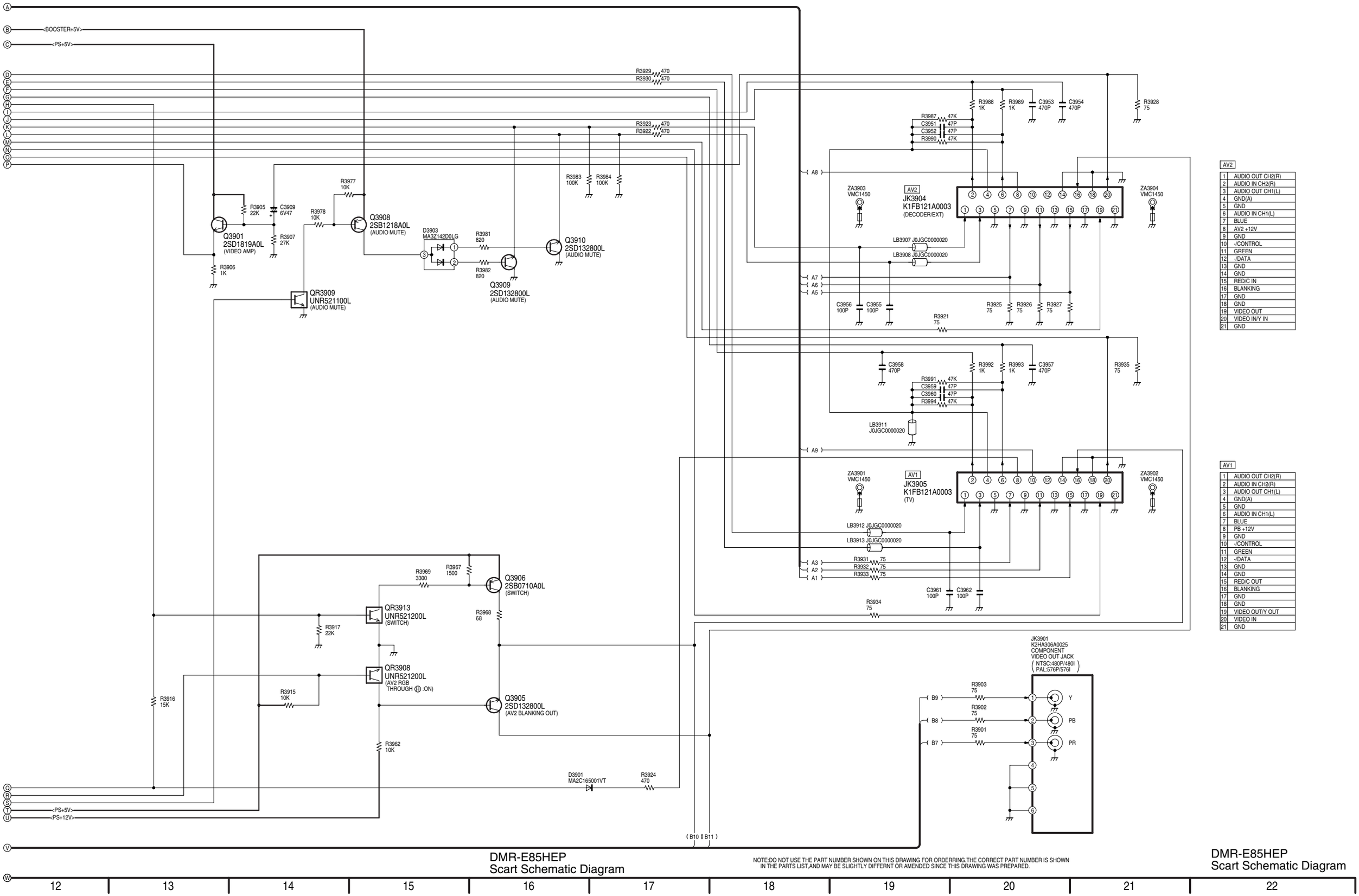
AV2 THROUGH (L)
Y/C(H)
EXTEMAL CONTROL1
EXTEMAL CONTROL2
GAIN CTL (0.6dB)
10V REG
TO AUDIO VCC
VCC 12V (12V±0.5V)
TO REF DC
BLANKING (L)
EXTEMAL CONTROL3
FSS CONTROL TERMINAL (L.M.H)
DATA CLOCK INTERFACE BLOCK
SDA
SCL

AUDIO R
AUDIO L
R
L

C3928 50V1
C3929 50V1
R3972 10K
R3973 10K
R3904 33
C3930 0.01
R3911 2200
R3912 2200
C3931 50V1
C3932 50V1
C3933 16V100
C3934 0.01
C3939 0.01
R3975 100
R3976 100
R3985 4700
R3910 150
R3913 180
R3986 1200
C3935 16V100
C3938 0.1

(A10) (A11) (A4)
(B16) (B17) (B4) (B5) (B12) (B13) (B6) (B14) (B15) (B3) (B2) (B1)

DMR-E85HEP
Scart Schematic Diagram



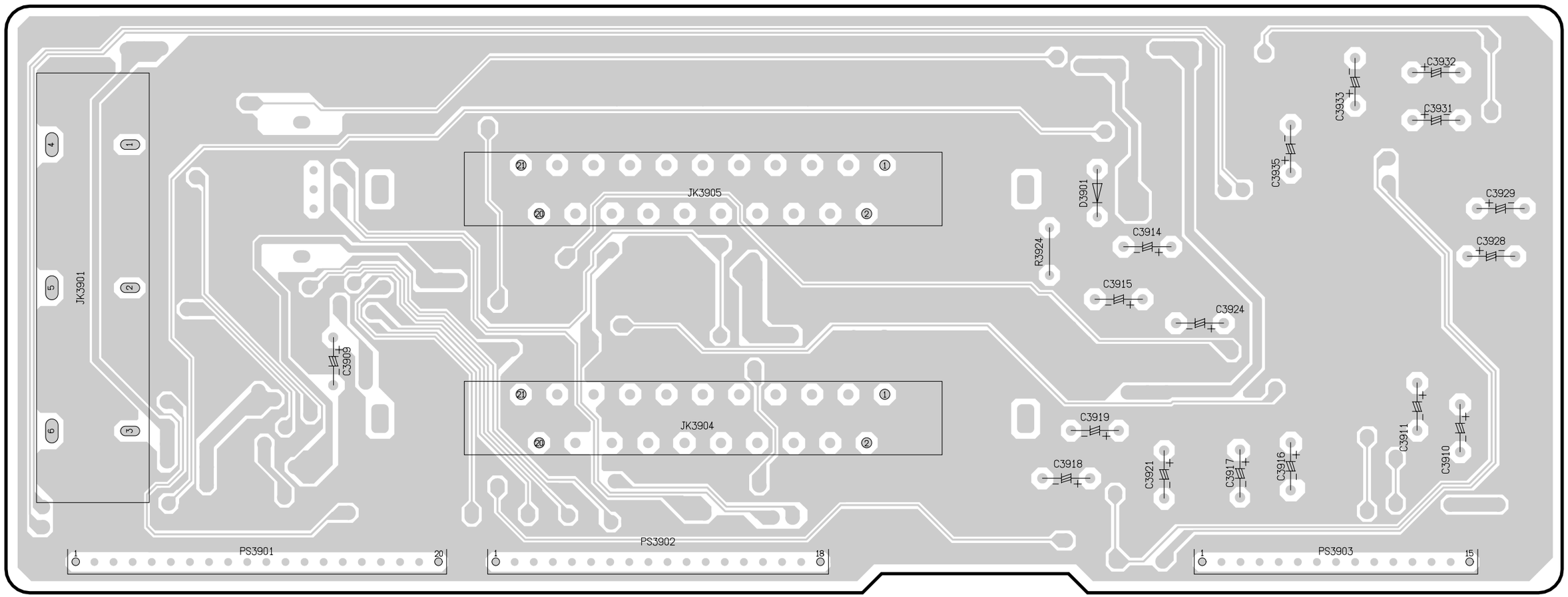
DMR-E85HEP
Scart Schematic Diagram

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Scart Schematic Diagram

Scart P.C.B.(Component Side)			
Diode		**Capacitor**	
D3901	C-7	C3916	A-8
Connector		C3917	A-8
JK3901	B-1	C3918	A-7
JK3904	B-5	C3919	B-7
JK3905	C-5	C3921	A-7
PS3901	A-2	C3924	B-7
PS3902	A-4	C3928	C-9
PS3903	A-8	C3929	C-9
Capacitor		C3931	C-9
C3909	B-3	C3932	D-9
C3910	B-9	C3933	D-8
C3911	B-9	C3935	C-8
C3914	C-7	**Resisitor**	
C3915	B-7	R3924	C-7

Scart P.C.B.



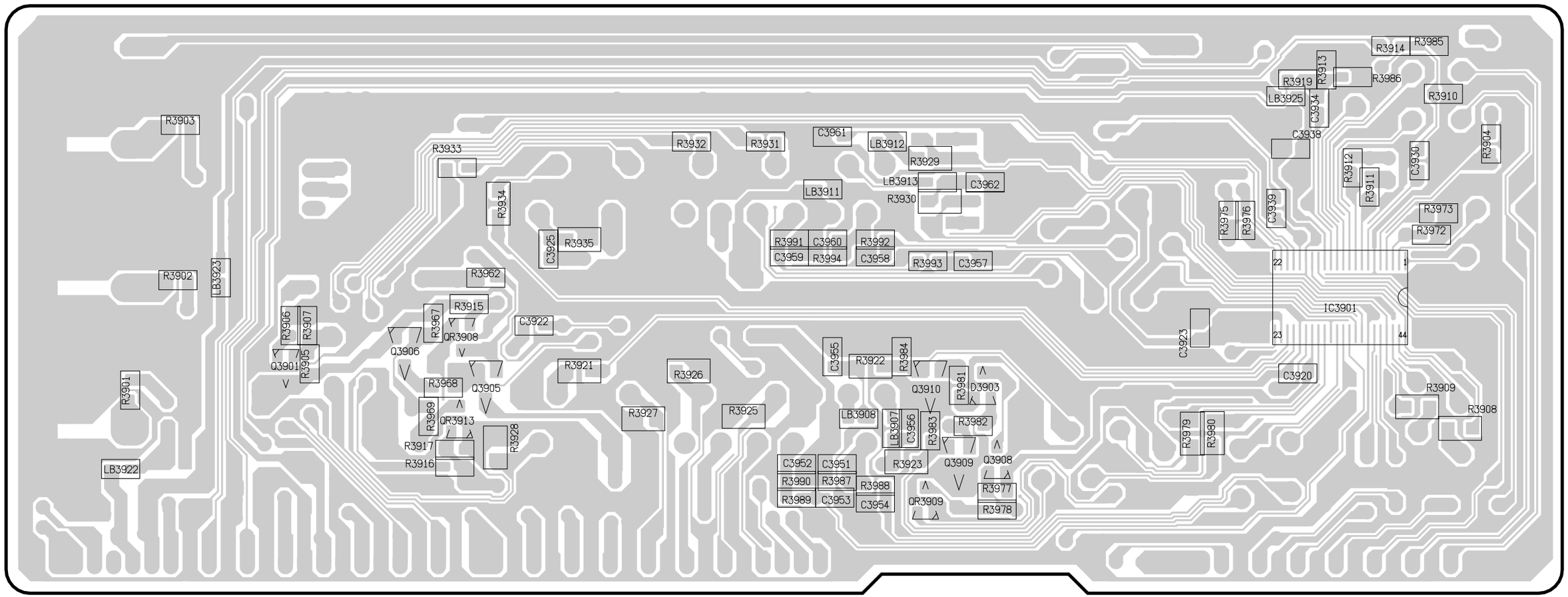
(Component Side)

DMR-E85HEP
Scart P.C.B. (Component Side)
(REP3682A)

Scart P.C.B.(Foil Side)

Integrated Circuit		Coil		C3934	C-8	Resistor		R3916	B-3	R3935	C-4	R3983	B-6
IC3901	B-8	LB3907	B-6	C3938	C-8	R3901	B-1	R3917	B-3	R3962	C-3	R3984	B-6
Transistor		LB3908	B-5	C3939	C-8	R3902	C-2	R3919	D-8	R3967	B-3	R3985	D-9
Q3901	B-2	LB3911	C-5	C3951	B-5	R3903	C-2	R3921	B-4	R3968	B-3	R3986	D-8
Q3905	B-3	LB3912	C-6	C3952	B-5	R3904	C-9	R3922	B-6	R3969	B-3	R3987	A-5
Q3906	B-3	LB3913	C-6	C3953	A-5	R3905	B-2	R3923	B-6	R3972	C-9	R3988	A-6
Q3908	B-6	LB3922	B-1	C3954	A-6	R3906	B-2	R3925	B-5	R3973	C-9	R3989	A-5
Q3909	B-6	LB3923	C-2	C3955	B-5	R3907	B-2	R3926	B-5	R3975	C-7	R3990	A-5
Q3910	B-6	LB3925	D-8	C3956	B-6	R3908	B-9	R3927	B-4	R3976	C-8	R3991	C-5
Transistor-resistor		**Capacitor**		C3957	C-6	R3909	B-9	R3928	B-3	R3977	A-6	R3992	C-6
QR3908	B-3	C3920	B-8	C3958	C-6	R3910	D-9	R3929	C-6	R3978	A-6	R3993	C-6
QR3909	A-6	C3922	B-4	C3959	C-5	R3911	C-8	R3930	C-6	R3979	B-7	R3994	C-5
QR3913	B-3	C3923	B-7	C3960	C-5	R3912	C-8	R3932	C-5	R3980	B-7		
Diode		C3925	C-4	C3961	C-5	R3914	D-8	R3933	C-3	R3981	B-6		
D3903	B-6	C3930	C-8	C3962	C-6	R3915	B-3	R3934	C-4	R3982	B-6		

Scart P.C.B.



(Foil Side)

DMR-E85HEP
Scart P.C.B. (Foil Side)
(REP3682A)

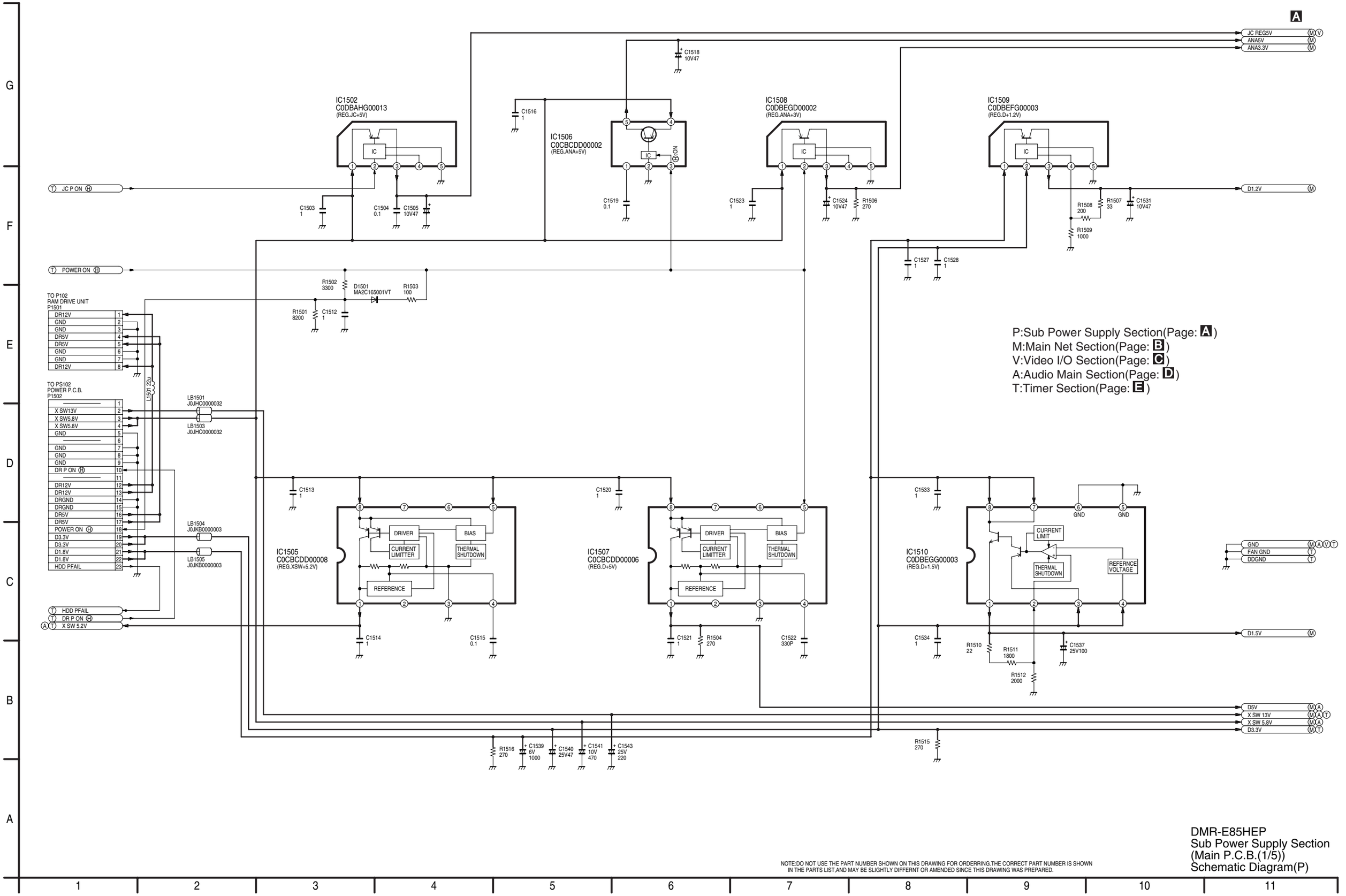
Ref No.	IC3901																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	5.6	5.6	0	0	1.2	0	2.2	0	0	5.6	5.6	5.0	1.8	12.1	5.6	5.6	0	1.8	3.6	0
PLAY	5.6	5.6	0	0	1.2	0	2.2	0	0	5.6	5.6	5.0	1.8	12.1	5.6	5.6	0	1.8	3.6	11.6
STOP	5.6	5.6	0	0	1.2	0	2.2	0	0	5.6	5.6	5.0	1.8	12.1	5.6	5.6	0	1.8	3.6	0

Ref No.	IC3901																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	4.2	4.5	1.8	5.0	2.0	2.0	0	1.8	5.0	4.9	4.9	0	5.6	5.6	0	5.6	5.6	0	4.9	4.9
PLAY	4.2	4.5	1.8	5.0	2.0	2.0	0	1.8	5.0	4.9	4.9	0	5.6	5.6	0.2	5.6	5.6	0	4.9	4.9
STOP	4.2	4.5	1.8	5.0	2.0	2.0	0	1.8	5.0	4.9	4.9	0	5.6	5.6	0	5.6	5.6	0	4.9	4.9

Ref No.	IC3901																			
MODE	41	42	43	44																
REC	0	4.9	4.9	0																
PLAY	0	4.9	4.9	0																
STOP	0	4.9	4.9	0																

Ref No.	Q3901				Q3905				Q3906				Q3908				Q3909			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	2.1	5.0	2.7		0	0	0		5.0	0	5.0		5.0	-0.6	5.0		0	0	-0.2	
PLAY	2.1	5.0	2.7		0	0	0		5.0	0	5.0		5.0	-0.6	5.0		0	0	-0.2	
STOP	2.1	5.0	2.7		0	0	0		5.0	0	5.0		5.0	-0.6	5.0		0	0	-0.3	

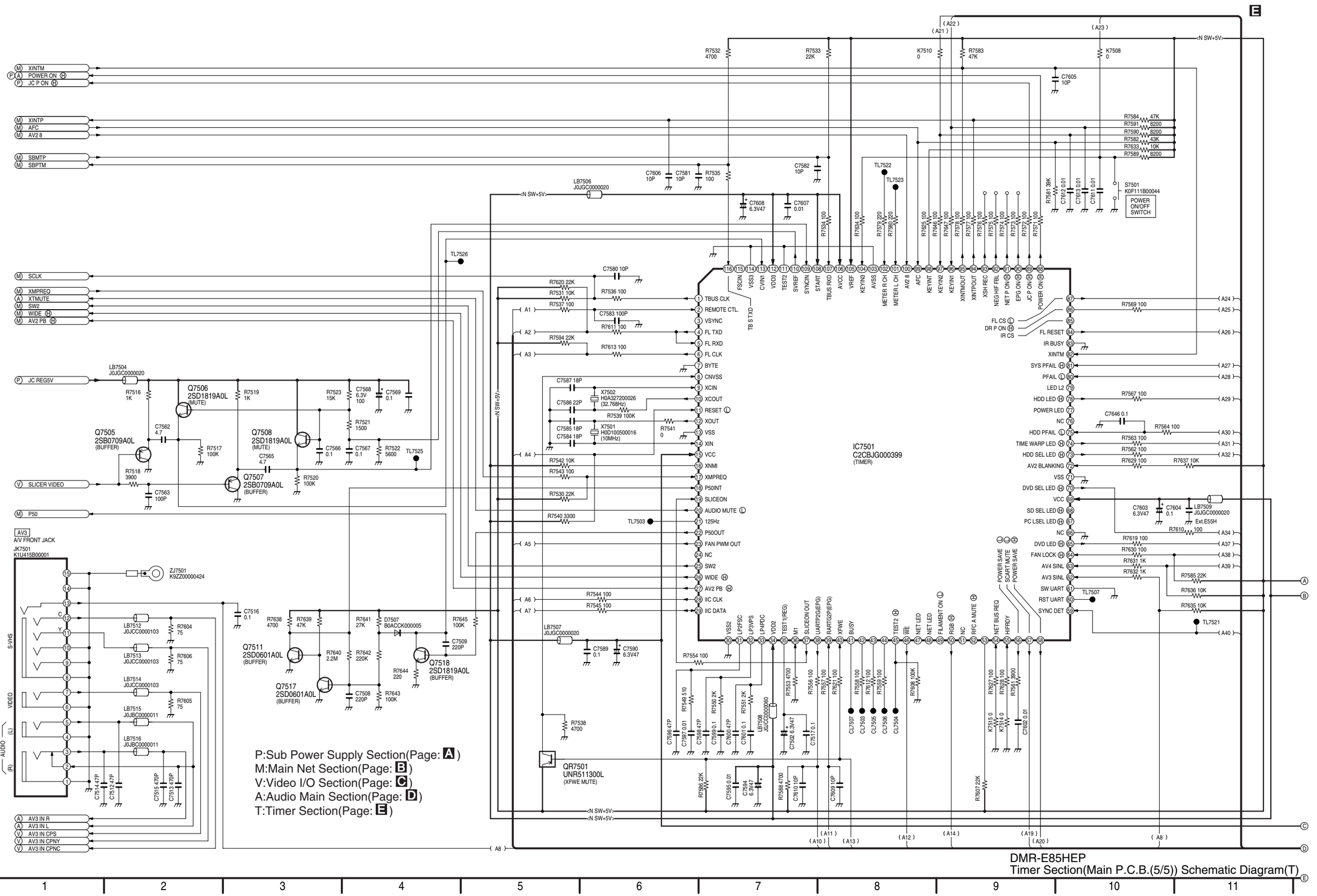
Ref No.	Q3910				QR3908				QR3909				QR3913							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
REC	0	0	0		0	3.6	0		0	5.0	0		0	5.0	0					
PLAY	0	0	0		0	0	3.6		0	5.0	0		0	5.0	0.2					
STOP	0	0	-0.1		0	0	3.6		0	5.0	0		0	5.0	0					



P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Sub Power Supply Section
(Main P.C.B.(1/5))
Schematic Diagram(P)


IC7501
C2CBJG000399
(TIMER)
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)
DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

TIMER DISPLAY
DP7501
A2BD00000074

TL7501
TL7502

IC7502
C0HBB0000033
(DISPLAY DRIVE)

IC7503
C0EBJ0000110
(RESET)

IC7505
C0EBE0000194
(SYS PFAIL CTL.)

QR7502
UNR521200L
(SYS PFAIL Ⓗ OUT)

Q7503
2SD1994BR1VT
(SWITCH)

QR7503
UNR521400L
(PSAVE Ⓗ :ON)

T7501
ETS13TB119AP
(DISPLAY REG.)

IP7501
D4FAR4000001

L7502

LB7503
J0JKB0000037

LB7501
0

LB7502
0

LB7510
J0JGC0000020

LB7511
J0JGC0000020

IC7508
C0EBE0000218
(RESET)

IC7506
C0ABBA000073
(FAN MOTOR DRIVE)

Q7512
2SD0874A0L
(FAN MOTOR DRIVE)

IC7504
C3EBJC000038
(EEPROM)

Q7519
2SD601A0L
(HDD LED DRIVE)

D7512
B3AEA0000049

TW7501

TO P7801
FRONT(R) P.C.B.
P7504
1 KEYIN2
2 KEYIN3
3 KEYIN1
4 TIME WARP LED Ⓗ
5 HDD SEL LED Ⓗ
6 N SW 5V
7 DVD SEL LED Ⓗ
8
9
10 DVD LED Ⓗ
11 IR
12 GND

P7503
1 FANDCOUT
2 GND
3 FANLOCK Ⓗ

FAN MOTOR

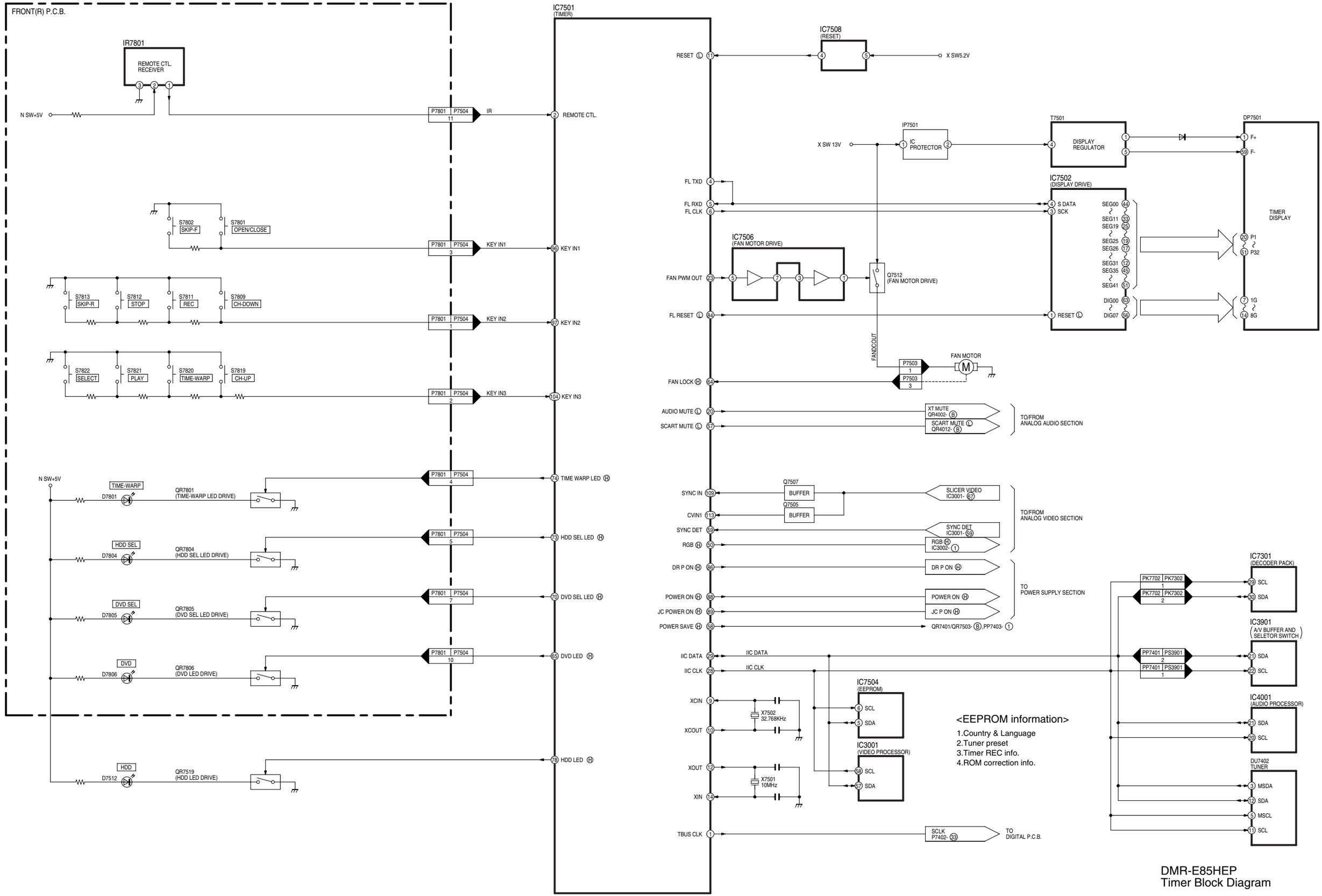
X SW 13V (P)
GND (P)
UNREG 38V (M)
DDGND (P)
POWER SAVE Ⓗ (M)
UARTP2G (M)
UARTG2P (M)
RGB Ⓗ (V)
SCART MUTE Ⓛ (A)
D3.3V (P)
X SW 5.2V (P)
DR P ON Ⓗ (P)
HDD PFAIL (P)
AV4 S IN L (V)
SYNC DET (V)
XFWE (M)
IIC CLK (M A V)
IIC DATA (M A V)
FAN GND (P)

<N SW+5V>
<X SW+13V>

DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)



<EEPROM information>

1.Country & Language
2.Tuner preset
3.Timer REC info.
4.ROM correction info.

DMR-E85HEP
Timer Block Diagram

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

IC3501
MN88302
(RTSC)

FL3513 F1H0J4740004
FL3514 F1H0J4740004
FL3515 F1H0J4740004
FL3516 F1H0J4740004
FL3505 F1H0J4740004
FL3506 F1H0J4740004
FL3507 F1H0J4740004
FL3508 F1H0J4740004
FL3509 F1H0J4740004

RX3501 22x4
RX3502 22x4
RX3503 22x4
RX3504 22x4
RX3538 47Kx4
RX3539 47Kx4
RX3540 47Kx4
RX3505 33x4
RX3506 33x4
RX3507 33x4
RX3508 33x4
R3501 22
R3502 22
R3503 22
R3510 10K
R3511 10K
R3514 1M
R3559 0
X3501 H2D330500001

TR MAB7
TR MAB6
TR MAB5
TR MAB4
TR MAB3
TR MAB2
TR MAB1
TR MAB0

D 1.5V
DGND
D 3.3V

ED0
ED1
ED2
ED3
ED4
ED5
ED6
ED7
RCLKI
CDACK
CDREADY

STD0
STD1
STD2
STD3
STD4
STD5
STD6
STD7
STCLK
SVALID
STEN

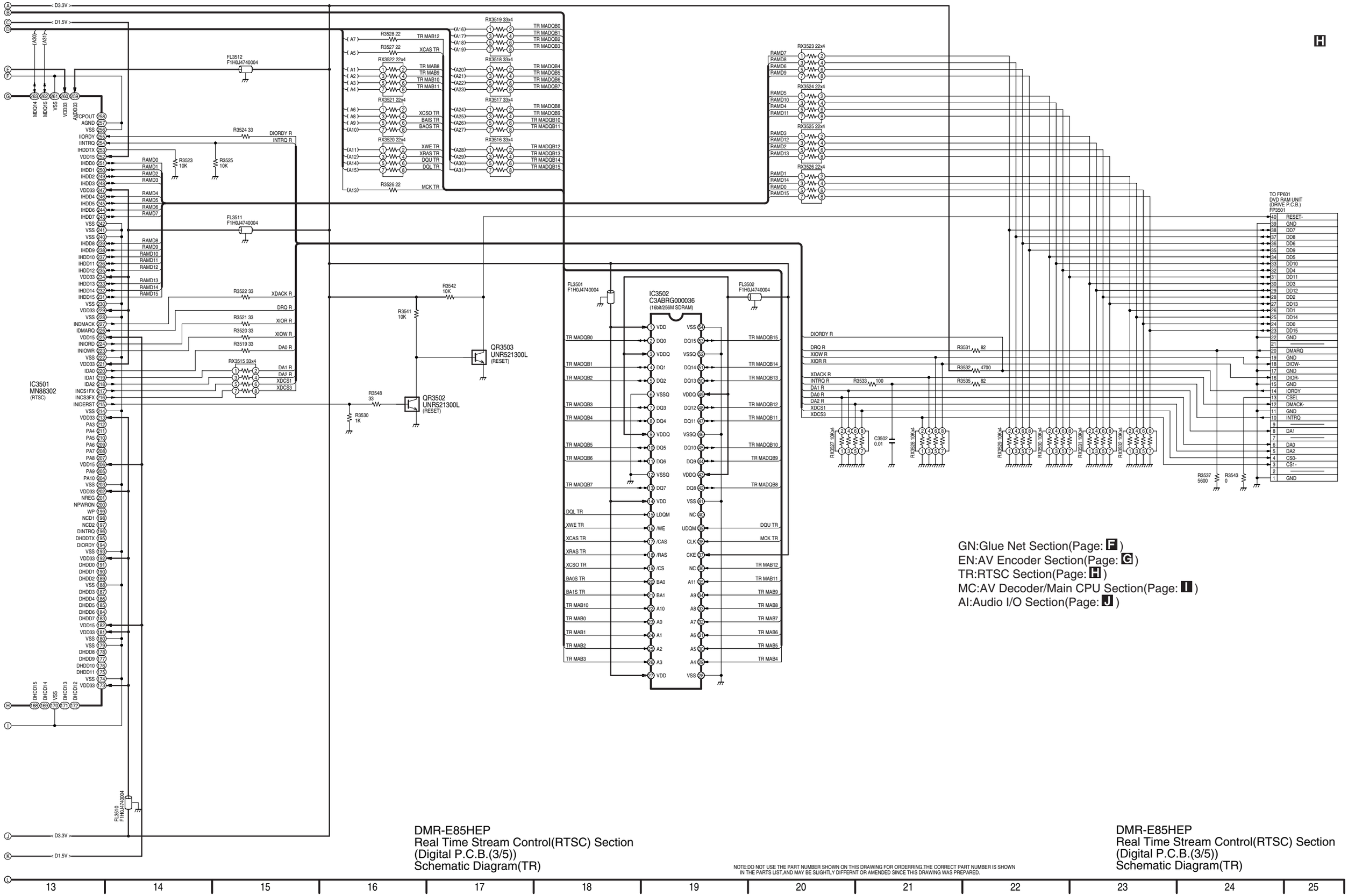
XTRCS
XMRE
XMWE2
XMWE3
XTRDK

MSA1
MSA2
MSA3
MSA4
SA5
SA6
SA7
SA8
SA9
SA10
SA12
SA13
SA14
SA15
SA16
SA17
SA18
SA19
SA20
SA21

MSD16
MSD17
MSD18
MSD19
MSD20
MSD21
MSD22
MSD23
MSD24
MSD25
MSD26
MSD27
MSD28
MSD29
MSD30
MSD31
XTRINT
XRSTOUT

D3.3V
D1.5V

DMR-E85HEP Real Time Stream Control(RTSC) Section(Digital P.C.B.(3/5)) Schematic Diagram(TR)

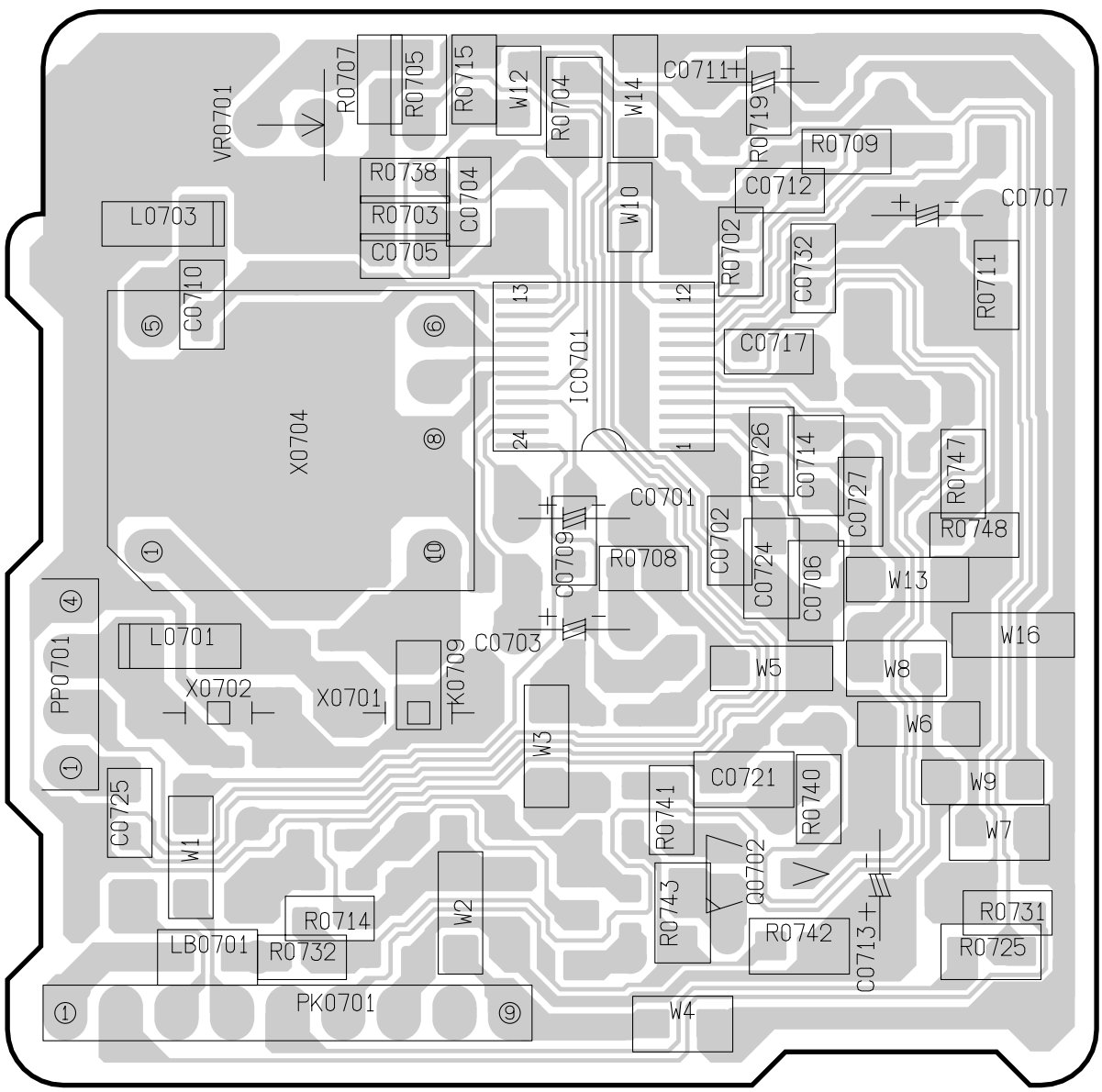


DMR-E85HEP
Real Time Stream Control(RTSC) Section
(Digital P.C.B.(3/5))
Schematic Diagram(TR)

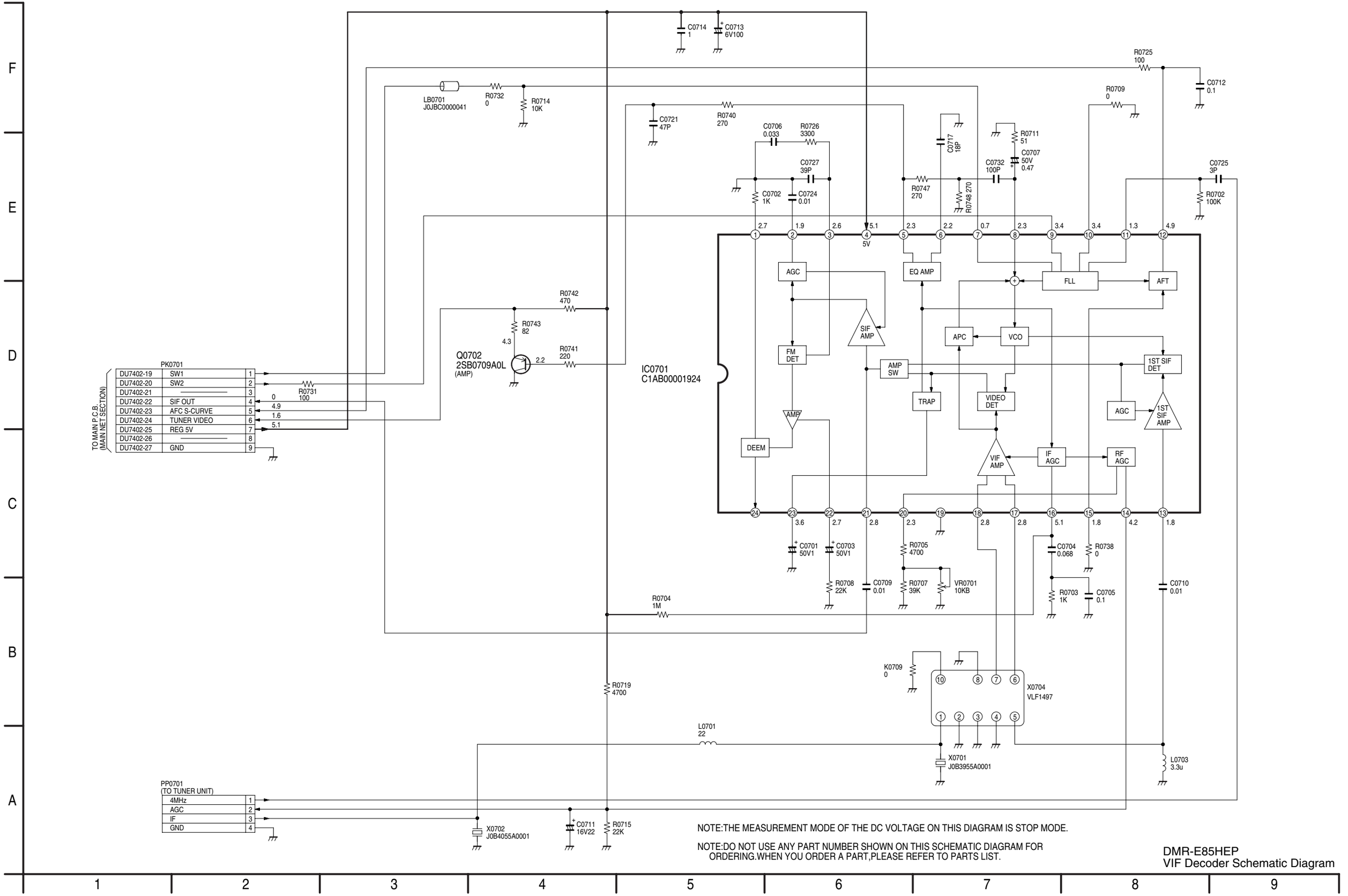
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Real Time Stream Control(RTSC) Section
(Digital P.C.B.(3/5))
Schematic Diagram(TR)

VIF Decoder P.C.B.



DMR-E85HEP
VIF Decoder P.C.B.
(VEP07A71N)



NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP
VIF Decoder Schematic Diagram

M YOUT DM
P JC REG5V
T RGB Ⓗ
M GPYOUT DM
M RPROUT DM
M BPBOUT DM
M PS 5V
T SYNC DET
M IIC CLK
M IIC DATA
M B IN
M G IN
M R/C IN
M COUT DM
M V YIN DM
T SLICER VIDEO
M CPNCIN DM
T AV3 IN CPS
T AV3 IN CPNY
T AV3 IN CPNC
M SCART VIN

LB3004 J0JHC0000032
LB3002 J0JHC0000032
LB3003 J0JHC0000032

R3053 1K
R3052 1K
R3049 33
R3051 33
QR3002 UNR521200L (RGB Ⓗ :ON)
QR3003 UNR521200L (RGB Ⓗ :ON)
Q3009 2SB1218A0L (BUFFER)
Q3006 2SB1218A0L (BUFFER)
Q3010 2SB1218A0L (BUFFER)

C3003 0.01
C3004 6V220
C3007 0.01
R3026 15
R3027 470
R3028 470
C3069 0.01
C3070 0.01
C3019 0.01
R3047 15K
R3029 100K
R3044 33
R3045 220
R3046 220
C3022 6V22
C3026 6V47
C3023 6V47
C3027 6V47
C3028 6V47
C3024 6V22
C3029 6V47
C3025 6V47
C3030 0.01

C3006 0.1
C3005 0.033
R3030 1M
V/C SYNC OUT
SYNC DET OUT

IC3001
C1AB00001979
(VIDEO PROCESSOR)

CLK MONI
SLICE DC
SYNC CR
SYN VCC
Y/V OUT A
LINE 3 OUT
SLICER VIDEO A
LINE 2 OUT
C OUT A
TEST2
Y/V OUT B
SW VCC1
SLICER VIDEO B
SGND
C OUT B
SW GND1
BL SW IN
DVCC2
BLSW OUT
BLGND
R3060 75

SYN GND
CLKR
VREG
AV2 B IN
DRV VCC3
DVD B/PB IN
TEST1
AV2 G IN
DET OUT B
DVD G/PY IN
VREF
AV2 R/C IN
DRV VCC2
DVD R/PR IN
DRV GND3
DVD C IN
DVCC1
DVD Y IN
DRV GND1
PY/G OUT
PY/G SAG
PR/R/C OUT
PR/R/C SAG
PB/B OUT
PB/B SAG
S1/S2 OUT
C75 OUT
V75 SAG
V75 OUT
Y75 SAG
Y75 OUT
DRV VCC1
C 3 IN
S1/S2 DET3
DRV GND2
Y 3 IN

BS TUNER
DGND2
TUNER
SW VCC2
VIDEO 1 IN
C/S DET1
Y 1 IN
DET OUT A
S1/S2 DET1
C 1 IN
DGND1
VIDEO 2 IN
C/S DET2
Y 2 IN
ADR
S1/S2 DET2
C 2 IN
SW GND2
VIDEO 3 IN
C/S DET3

C3010 0.01
C3012 0.01
C3013 0.01
C3021 0.01
C3014 0.01
C3015 0.01
C3016 0.01
C3017 0.01
R3037 1K
C3020 0.01
C3009 0.01
C3018 6V100
C3071 0.01
R3038 100
Q3007 2SB1218A0L (AMP)

C3031 0.01
C3032 6V330
C3033 16V22
C3034 6V330
C3035 16V22
C3036 6V330
C3037 16V22

IC3002
C1AB00001486
(SELECTOR SWITCH)
RGB Ⓗ
BUS
VCC
GND
C3065 0.01
C3066 1
C3067 1

IC3003
C9ZB00000377
(VIDEO BUFFER)
MUTE1
1.5-6M BPF
6M LPF
CLAMP
VCC
PY/CY
12M LPF
PB/CB
PR/CR
MUTE2
6dB
750hm
TEST
MIX

C3038 0.1
C3039 1
C3040 0.01
C3041 6V220
C3042 1
R3048 1800
C3045 6V47
C3046 6V47
R3050 1800
C3047 0.1
C3048 6V1000
C3049 6V100
C3051 6V1000
C3052 6V100
C3053 6V1000
C3054 6V100
C3055 6V330
C3056 6V330

AV4
JK3001
K1U822B00003
REAR JACK
LB3005 J0JBC0000011
LB3006 J0JGC0000020
LB3007 J0JBC0000011
LB3008 J0JGC0000020
C3057 470P
C3058 470P
C3059 470P
C3060 470P
C3061 47P
C3062 47P
R3054 75
R3055 75
R3056 75
R3058 75
C3064 0.1
R3057 75
R3059 75

MIX L OUT2
AV4 IN L
MIX R OUT2
AV4 IN R
AV4 R IN
R OUT
AV4 L IN
L OUT
AV4 V IN
V OUT
AV4 CPN IN
CPN OUT
G OUT
R/C OUT
B OUT
AN4 S IN L
CPS V OUT
CPN Y OUT
PY OUT
PB CBOUT
PR CROUT
AU GND
GND
ZJ3001 K9ZZ00000424

P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

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DMR-E85HEP
Video I/O Section
(Main P.C.B.(3/5))
Schematic Diagram(V)

Ref No.	IC1502						IC1505									IC1506				
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8		1	2	3	4	5
REC	5.6	4.9	5.0	0	0		5.2	0	0	3.6	5.7	0	0	5.7		1.3	0	4.8	5.6	5.0
PLAY	5.6	4.9	5.0	0	0		5.2	0	0	3.6	5.7	0	0	5.7		1.3	0	4.8	5.6	5.0
STOP	5.6	4.9	5.0	0	0		5.2	0	0	3.6	5.7	0	0	5.7		1.3	0	4.8	5.6	5.0
Ref No.	IC1507									IC1508						IC1509				
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5		1	2	3	4	5
REC	5.0	0	0	3.4	4.8	0	0	5.7		5.7	4.8	3.3	0	0		2.0	3.5	1.2	1.0	0
PLAY	5.0	0	0	3.4	4.8	0	0	5.7		5.7	4.8	3.3	0	0		2.0	3.5	1.2	1.0	0
STOP	5.0	0	0	3.4	4.8	0	0	5.7		5.7	4.8	3.3	0	0		2.0	3.5	1.2	1.0	0
Ref No.	IC1510																			
MODE	1	2	3	4	5	6	7	8												
REC	1.5	0.8	3.5	3.5	0	0	2.0	2.0												
PLAY	1.5	0.8	3.5	3.5	0	0	2.0	2.0												
STOP	1.5	0.8	3.5	3.5	0	0	2.0	2.0												
Ref No.	IC3001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	1.4	0	1.4	5.0	1.4	4.9	1.4	4.7	0.1	2.7	0	1.9	4.9	1.4	0	0.1	2.7	0	1.4	4.9
PLAY	1.4	0	1.4	5.0	1.4	4.9	1.4	4.7	0.1	2.7	0	1.9	4.9	1.4	0	0	2.7	0	1.4	4.9
STOP	1.4	0	1.4	5.0	1.4	4.9	1.4	4.7	0.1	2.7	0	1.9	4.9	1.4	0	0.1	2.7	0	1.4	4.9
Ref No.	IC3001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	1.4	0	0.1	2.7	5.0	0.7	0.7	0.7	0.7	2.2	0	2.2	2.2	2.2	2.2	2.2	2.2	0	1.4	5.0
PLAY	1.4	0	0.1	2.7	5.0	0.7	0.7	0.7	0.7	2.2	0	2.2	2.2	2.2	2.2	2.2	2.2	0	1.4	5.0
STOP	1.4	0	0.1	2.7	5.0	0.7	0.7	0.7	0.7	2.2	0	2.2	2.2	2.2	2.2	2.2	2.2	0	1.4	5.0
Ref No.	IC3001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	2.8	0	2.8	5.0	2.8	2.8	2.8	4.7	2.8	0	2.8	5.0	2.8	2.9	1.0	0	4.1	4.5	0	0.4
PLAY	2.8	0	2.8	5.0	2.8	2.8	2.8	4.7	2.8	0	2.8	5.0	2.8	2.9	1.0	0	4.1	4.5	0	0.4
STOP	2.8	0	2.8	5.0	2.8	2.8	2.8	4.7	2.8	0	2.8	5.0	2.8	2.9	1.0	0	4.2	4.5	0	0
Ref No.	IC3001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	0.8	0.8	5.0	1.3	0	1.8	0	2.0	0	0.8	5.0	0.8	0	2.0	0	0	5.0	0	0
PLAY	0	0.8	0.8	5.0	1.3	0	1.9	0	2.1	0	0.8	5.0	0.8	0	2.0	0	0	5.0	0	0
STOP	0	0.9	0	5.0	0.9	0	0.9	0	2.1	0	0.8	5.0	0.7	0	2.0	0	0	5.0	0	0
Ref No.	IC3002																			
MODE	1	2	3	4	5	6														
REC	0	1.7	5.0	2.5	0	2.4														
PLAY	0	1.7	5.0	2.5	0	2.4														
STOP	0	1.7	5.0	2.5	0	2.4														

Ref No.	IC3003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.1	5.0	2.7	0	2.6	5.0	0	2.6	0	2.0	5.0	2.8	0	2.8	5.0	2.2	2.3	0	2.3	0
PLAY	2.1	5.0	2.7	0	2.6	5.0	0	2.6	0	2.0	5.0	2.8	0	2.8	5.0	2.2	2.3	0	2.3	0
STOP	2.1	5.0	2.7	0	2.6	5.0	0	2.6	0	2.0	5.0	2.8	0	2.8	5.0	2.2	2.3	0	2.3	0
Ref No.	IC3003																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
REC	2.1	2.1	0	2.1	2.1	0	2.0	0	2.1	2.1	0	2.3								
PLAY	2.1	2.1	0	2.1	2.2	0	2.0	0	2.1	2.1	0	2.3								
STOP	2.1	2.2	0	2.2	2.2	0	2.0	0	2.1	2.1	0	2.3								
Ref No.	IC4001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	0.3	4.5	4.5	0.3	0.3	4.6	4.6	3.4	4.5	4.5	4.5	4.5	4.5	4.5	0	4.5	0	4.5	0	4.5
PLAY	0.3	4.5	4.5	0.1	0.1	4.6	4.6	3.4	4.5	4.5	4.5	4.5	4.5	4.5	0	4.5	0	4.5	0	4.5
STOP	0.3	4.5	4.5	0.1	0.1	4.6	4.6	3.4	4.5	4.5	4.5	4.5	4.5	4.5	0	4.5	0	4.5	0	4.5
Ref No.	IC4001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
REC	4.1	0	4.6	4.5	4.5	4.5	4.5	4.6	4.6	9.2	4.5	4.5								
PLAY	4.1	0	4.6	4.5	4.5	4.5	4.5	4.6	4.6	9.2	4.5	4.5								
STOP	4.2	0	4.6	4.5	4.5	4.5	4.5	4.6	4.6	9.2	4.5	4.5								
Ref No.	IC4005									IC4006				IC4007						
MODE	1	2	3	4	5	6	7	8		1	2	3		1	2	3	4	5		
REC	2.5	5.0	0	0	5.0	0	2.5	5.0		2.5	5.0	0		5.0	1.7	0	2.5	5.0		
PLAY	2.5	5.0	0	0	5.0	0	2.5	5.0		2.5	5.0	0		5.0	1.7	0	2.5	5.0		
STOP	2.5	5.0	0	0	5.0	0	2.5	5.0		2.5	5.0	0		5.0	1.8	0	2.5	5.0		
Ref No.	IC4009									IC4010						IC4011				
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5		1	2	3	4	5
REC	6.0	6.0	6.0	0	6.0	6.0	6.0	12.1		13.5	4.8	12.1	0	0		1.2	0	4.8	5.7	5.0
PLAY	6.0	6.0	6.0	0	6.0	6.0	6.0	12.1		13.5	4.8	12.1	0	0		1.2	0	4.8	5.7	5.0
STOP	6.0	6.1	6.1	0	6.1	6.1	6.1	12.1		13.6	4.8	12.1	0	0		1.2	0	4.8	5.7	5.0
Ref No.	IC4012									IC4013				IC7401						
MODE	1	2	3	4	5	6	7	8		1	2	3		1	2	3	4	5		
REC	6.0	6.0	6.0	0	6.0	6.0	6.0	12.1		9.2	0	12.1		13.5	3.3	12.1	0	0		
PLAY	6.0	6.0	6.0	0	6.0	6.0	6.0	12.1		9.2	0	12.1		13.5	3.3	12.1	0	0		
STOP	6.1	6.1	6.1	0	6.0	6.1	6.1	12.1		9.2	0	12.1		13.6	3.3	12.1	0	0		
Ref No.	IC7402							IC7403												
MODE	1	2	3	4	5	6		1	2	3	4	5								
REC	5.5	0	5.5	1.2	0	5.0		5.5	3.3	5.0	0	0								
PLAY	5.5	0	5.5	1.2	0	5.0		5.5	3.3	5.0	0	0								
STOP	5.6	0	5.6	1.3	0	5.0		5.6	3.3	5.0	0	0								
Ref No.	IC7501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	4.9	4.9	0	4.1	4.1	4.4	0	0	-	-	4.9	-	0	-	4.9	4.9	5.0	4.9	0.3	4.9
PLAY	4.9	4.9	0	4.1	4.1	4.4	0	0	-	-	4.9	-	0	-	4.9	4.9	5.0	4.9	0.3	4.9
STOP	4.9	4.9	0	4.1	4.1	4.4	0	0	-	-	4.9	-	0	-	4.9	4.9	5.0	4.9	0	4.9
Ref No.	IC7501																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	0	0	0	0	0	0	4.5	4.1	0	1.8	1.7	0	4.9	0	0	0.3	0	5.0	4.9
PLAY	0	0	0	0	0	0	4.9	4.5	4.1	0	1.8	1.7	1.9	4.9	2.6	0	0.3	0.1	5.0	4.9
STOP	0	0	0	0	0	0	0	4.5	4.2	0	1.8	1.7	1.9	4.9	2.6	0	0	0.1	5.0	4.9
Ref No.	IC7501																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0	0	0	0	0	4.9	0	0	0	0	0	0	4.9	0	0	4.9	4.9	0	0	0
PLAY	0	0	0	0	0	4.9	0	0	0	0	0	0	4.9	0	0	4.9	4.9	0	0	0
STOP	0	0	0	0	0	4.9	0	0	0	0	0	0	4.9	0	0	4.9	4.9	0	0	0
Ref No.	IC7501																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	4.9	4.9	4.9	4.9	0	0	0	4.9	4.9	0	4.9	0	0	0	4.9	0	0	0	4.9
PLAY	0	4.9	4.9	4.9	4.9	0	0	0	4.9	4.9	0	4.9	0	0	0	4.9	0	0	0	4.9
STOP	0	4.9	4.9	4.9	4.9	0	0	0	4.9	4.9	0	4.9	0	0	0	4.9	0	0	0	4.9
Ref No.	IC7501																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
REC	0	4.9	0	4.9	0	4.9	3.0	0	4.9	0	0	0	0	4.9	4.9	4.9	4.9	4.9	2.3	0
PLAY	0	4.9	0	4.9	0	4.9	3.0	4.9	4.9	0	0	0	0	4.9	4.9	4.9	4.9	4.9	2.3	5.0
STOP	0	4.9	0	4.9	0	4.9	3.0	4.9	4.9	0	0	0	0	4.9	4.9	4.9	4.9	4.9	2.3	0
Ref No.	IC7501																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116				
REC	0.2	0.2	0	4.9	4.9	4.9	4.9	4.9	2.0	1.3	0	4.9	2.0	0	0	4.9				
PLAY	0.3	0.3	0	4.9	4.9	4.9	4.9	4.9	2.0	1.3	0	4.9	2.0	0	0	4.9				
STOP	0.2	0.2	0	4.9	4.9	4.9	4.9	4.9	1.1	1.3	0	4.9	1.1	0	0	4.9				
Ref No.	IC7502																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	4.9	3.0	4.4	4.1	0	2.2	2.2	4.9	-28.6	-28.6	-28.6	-28.6	-28.6	-25.4	-25.4	-22.3	-28.6	4.9	-28.6	-25.4
PLAY	4.9	3.0	4.4	4.1	0	2.2	2.2	4.9	-28.6	-28.6	-28.6	-28.6	-28.6	-25.5	-25.5	-22.3	-28.6	4.9	-28.6	-28.6
STOP	4.9	3.0	4.4	4.1	0	2.2	2.2	4.9	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-25.5	-25.5	-28.6	4.9	-25.5	-28.6
Ref No.	IC7502																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	-28.6	-28.6	-28.6	-22.2	-25.4	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-16.0	-16.0	-19.1	-19.2	-22.3	-22.3	-19.1	-22.3
PLAY	-25.4	-28.6	-25.4	-22.3	-25.4	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-19.1	-16.0	-25.4	-22.3	-25.5	-22.3	-22.3	-15.9
STOP	-28.6	-28.6	-28.6	-25.5	-22.3	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-28.6	-25.5	-19.1	-28.6	-22.3	-28.6	-22.3	-25.5	-19.1
Ref No.	IC7502																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	-15.9	-15.9	-28.6	-28.6	-28.6	-28.6	-22.3	-25.4	-19.2	-16.0	-22.2	-28.6	-28.6	-28.6	-28.6	-25.5	-25.5	-25.5	-25.5	-25.5
PLAY	-19.1	-19.1	-28.6	-28.6	-28.6	-25.4	-22.3	-25.5	-19.2	-16.0	-22.3	-28.6	-28.6	-28.6	-28.6	-25.5	-25.5	-25.5	-25.5	-25.5
STOP	-25.5	-15.9	-28.6	-28.6	-28.6	-28.7	-22.3	-25.5	-22.3	-19.2	-22.3	-28.6	-28.6	-28.6	-28.7	-25.5	-25.5	-25.5	-25.6	-25.5

Ref No.	IC7502																			
MODE	61	62	63	64																
REC	-25.5	-25.5	-25.5	-28.8																
PLAY	-25.5	-25.5	-25.5	-28.8																
STOP	-25.6	-25.5	-25.6	-28.9																

Ref No.	IC7503						IC7504									IC7505				
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8		1	2	3	4	5
REC	5.0	5.2	0	0	0		0	0	0	0	4.1	4.5	4.9	4.9		2.3	3.5	0	0	0
PLAY	4.9	5.2	0	0	0		0	0	0	0	4.1	4.5	4.9	4.9		2.3	3.5	0	0	0
STOP	4.9	5.2	0	0	0		0	0	0	0	4.2	4.5	4.9	4.9		2.3	3.5	0	0	0

Ref No.	IC7506								IC7508											
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5						
REC	0.4	0	0	0	0	0	0	13.5		0	0	0	4.9	4.9						
PLAY	0.4	0	0	0	0	0	0	13.5		0	0	0	4.9	4.9						
STOP	0.4	0	0	0	0	0	0	13.6		0	0	0	4.9	4.9						

Ref No.	Q3006				Q3007				Q3009				Q3010				Q4004			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	1.8	0	1.2		1.8	0	1.1		1.7	0	1.0		1.7	0	1.0		5.2	-0.8	5.2	
PLAY	1.8	0	1.2		1.8	0	1.2		1.7	0	1.0		1.7	0	1.0		5.2	-0.8	5.2	
STOP	1.8	0	1.2		1.8	0	1.2		1.7	0	1.0		1.7	0	1.0		5.2	5.1	4.5	

Ref No.	Q4006				Q4007				Q4008				Q4009				Q7401			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	0	0	-0.1		0	0	-0.4		0	0	-0.1		0	0	-0.4		0	12.1	0	
PLAY	0	0	-0.2		0	0	-0.5		0	0	-0.1		0	0	-0.5		0	12.1	0.1	
STOP	0	0	0.7		0	0	0.7		0	0	0.7		0	0	0.7		0	12.1	0.1	

Ref No.	Q7402				Q7404				Q7405				Q7406				Q7503			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	2.9	0	2.3		1.3	5.0	1.9		1.3	5.0	1.9		1.3	5.0	1.9		0	3.7	-1.0	
PLAY	2.9	0	2.3		1.3	5.0	1.9		1.3	5.0	1.9		1.3	5.0	1.9		0	3.5	-1.0	
STOP	2.9	0	2.2		1.3	5.0	1.9		1.3	5.0	1.9		1.3	5.0	1.9		0	3.5	-1.0	

Ref No.	Q7505				Q7506				Q7507				Q7508				Q7511			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	2.5	0	1.9		2.0	5.0	1.6		2.5	0	1.9		2.0	5.0	1.6		0	4.9	0	
PLAY	2.5	0	1.9		2.0	5.0	1.6		2.5	0	1.9		2.0	5.0	1.6		0	4.9	0	
STOP	1.6	0	0.9		1.1	5.0	1.6		1.7	0	1.0		1.1	5.0	1.6		0	4.9	0	

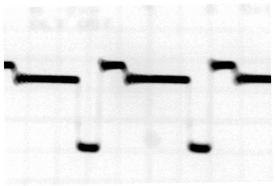
Ref No.	Q7512				Q7517				Q7518				Q7519				QR3002			
MODE	1	2	3		E	C	B		E	C	B		E	C	B		E	C	B	
REC	0.4	13.5	0		0	0	0.6		0	4.3	0		0	3.5	0		0	2.8	0	
PLAY	0.4	13.5	0		0	0	0.6		0	4.3	0		0	3.5	0		0	2.8	0	
STOP	0.4	13.6	0		0	0	0.6		0	4.3	0		0	3.5	0		0	2.8	0	

Ref No.	QR3003				QR4002				QR4003				QR4004				QR4005			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	0	2.8	0		0	0	4.9		0	0	2.5		0	5.2	0		0	5.2	0	
PLAY	0	2.8	0		0	0	4.9		0	0	2.5		0	5.2	0		0	5.2	0	
STOP	0	2.8	0		0	0	4.9		0	2.9	0		0	0	2.9		0	0	0	

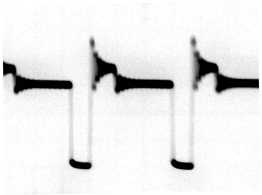
Ref No.	QR4012				QR7401				QR7402				QR7403				QR7404			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	5.2	0	5.1		0	3.3	0		0	4.7	0		0	0	4.7		12.1	-0.3	12.0	
PLAY	5.2	0	5.1		0	3.3	0		0	4.7	0		0	0.1	4.7		12.1	12.1	0.1	
STOP	5.2	0	5.1		0	3.3	0		0	4.7	0		0	0.1	4.7		12.1	-0.3	12.0	

Ref No.	QR7405				QR7501				QR7502				QR7503				QR7505			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
REC	0	12.0	0		4.9	0	4.9		0	0	2.3		0	1.0	0		0	4.9	0	
PLAY	0	0.1	4.9		4.9	0	4.9		0	0	2.3		0	1.0	0		0	4.9	0	
STOP	0	12.0	0		4.9	0	4.9		0	0	2.3		0	1.0	0		0	4.9	0	

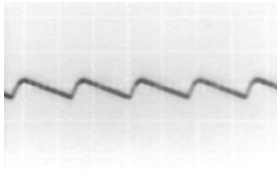
Ref No.	P9001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.1	1.3	0	0	1.3	2.1	0	0	1.3	0	0	0	1.3	0	3.5	0	0	1.5	5.0	0
PLAY	2.1	1.3	0	0	1.3	2.1	0	0	1.3	0	0	0	1.3	0	3.5	0	0	1.5	5.0	0
STOP	2.1	0.9	0	0	1.3	2.1	0	0	1.3	0	0	0	1.3	0	3.5	0	0	1.5	5.0	0
Ref No.	P9001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	5.0	1.2	3.5	0	3.5	1.2	4.9	0	4.9	1.0	4.9	0	4.9	1.0	5.0	0	4.9	3.4	4.9	0
PLAY	5.0	1.2	3.5	0	3.5	1.2	4.9	0	4.9	1.0	4.9	0	4.9	1.0	5.0	0	4.9	3.2	4.9	0
STOP	5.0	1.2	3.5	0	3.5	1.2	4.9	0	4.9	1.0	4.9	0	4.9	1.0	5.0	0	4.9	3.4	4.9	0
Ref No.	P9001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0.1	3.5	0	0	3.5	0	3.2	2.5	0	2.5	0	0	0	0	0	0	0	2.5	0	0
PLAY	0.1	3.5	0	0	3.5	0	3.2	2.5	0	2.5	0	0	0	0	0	0	0	2.5	0	0
STOP	0.1	3.5	0	0	3.5	0	3.2	2.5	0	2.5	0	0	0	0	0	0	0	2.5	0	0
Ref No.	P9001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	2.5	0	0	0.3	0	0	5.0	5.0	2.5	0	1.7	0	3.5	3.3	3.5	0	1.5	5.0	1.5
PLAY	0	2.5	0	0	0.3	0	0	5.0	5.0	2.5	0	1.7	0	3.5	3.3	3.5	0	1.5	5.0	1.5
STOP	0	2.5	0	0	0.3	0	0	5.0	5.0	0	0	1.7	0	3.5	3.3	3.5	0	1.5	5.0	1.5
Ref No.	P9001																			
MODE	81	82	83	84	85	86	87	88												
REC	5.7	1.2	5.0	1.5	5.7	1.2	5.7	1.2												
PLAY	5.7	1.2	5.0	1.5	5.7	1.2	5.7	1.2												
STOP	5.7	1.2	5.0	1.5	5.7	1.2	5.7	1.2												



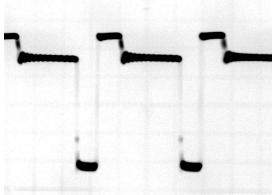
T001-B1 STOP
60Vp-p (5 μ sec.div)



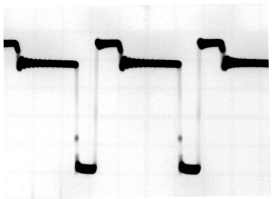
T001-P1 STOP
500Vp-p (5 μ sec.div)



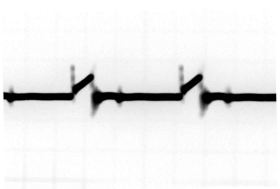
T001-P2 STOP
20Vp-p (5m sec.div)



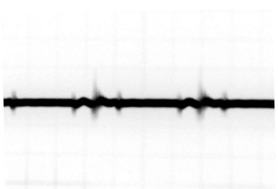
T001-S3 STOP
50Vp-p (5 μ sec.div)



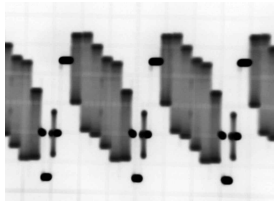
T001-S2,S4 STOP
24Vp-p (5 μ sec.div)



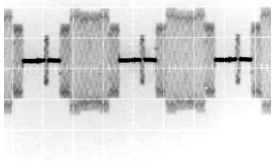
IC001-2 STOP
1.0Vp-p (5 μ sec.div)



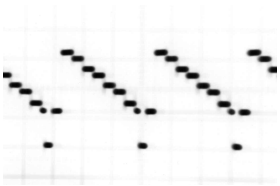
IC001-4 STOP
1.0Vp-p (5 μ sec.div)



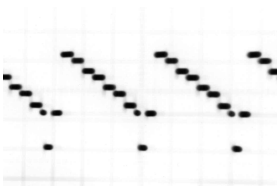
P7402-2 REC/PLAY
1.0Vp-p (20 μ sec.div)



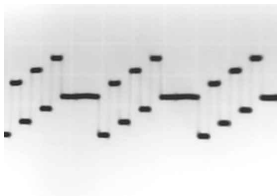
P7402-18 REC/PLAY
0.8Vp-p (20 μ sec.div)



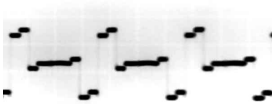
P7402-22 REC/PLAY
1.0Vp-p (20 μ sec.div)



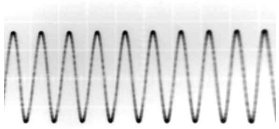
P7402-26 REC/PLAY
1.0Vp-p (20 μ sec.div)



P7402-30 REC/PLAY
0.6Vp-p (20 μ sec.div)

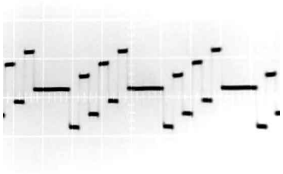


P7402-34 REC/PLAY
0.6Vp-p (20 μ sec.div)

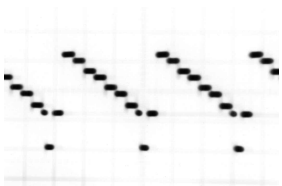


P7402-48,50 REC/PLAY
0.8Vp-p (1m sec.div)

PP7401-16 REC/PLAY
1.2Vp-p (20 μ sec.div)



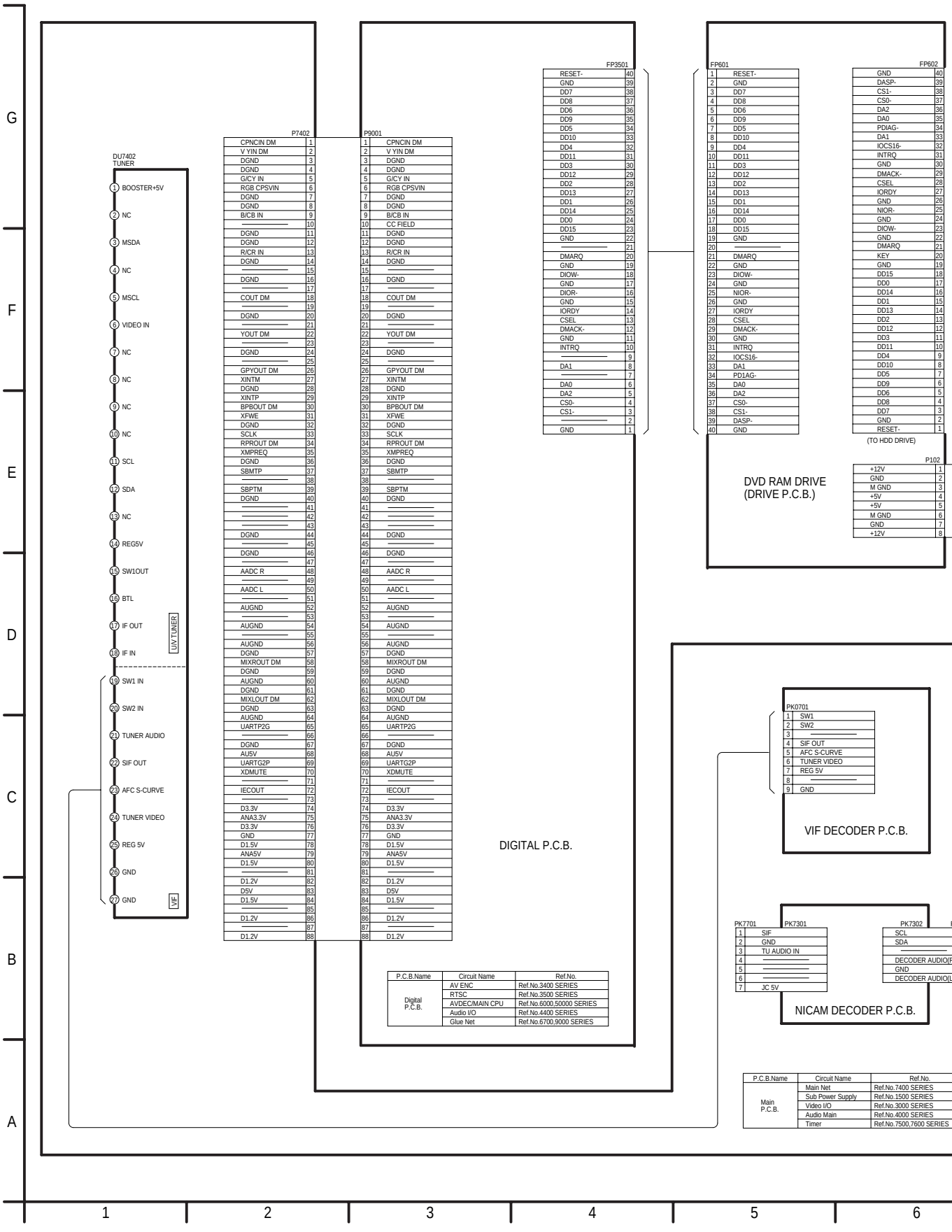
PP7401-18 REC/PLAY
1.2Vp-p (20 μ sec.div)

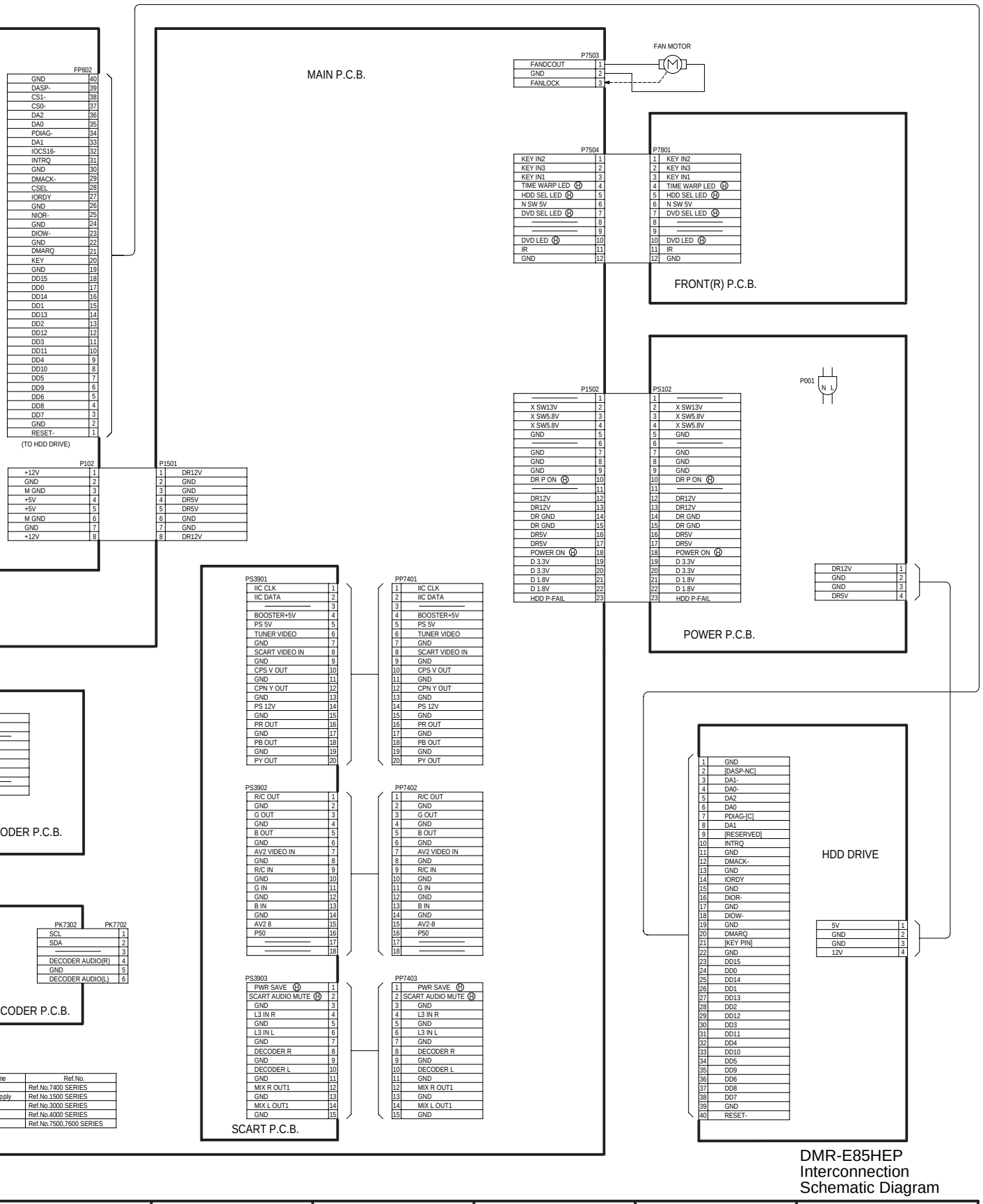


PP7401-20 REC/PLAY
2.0Vp-p (20 μ sec.div)

17 Schematic Diagram

17.1. Interconnection Schematic Diagram

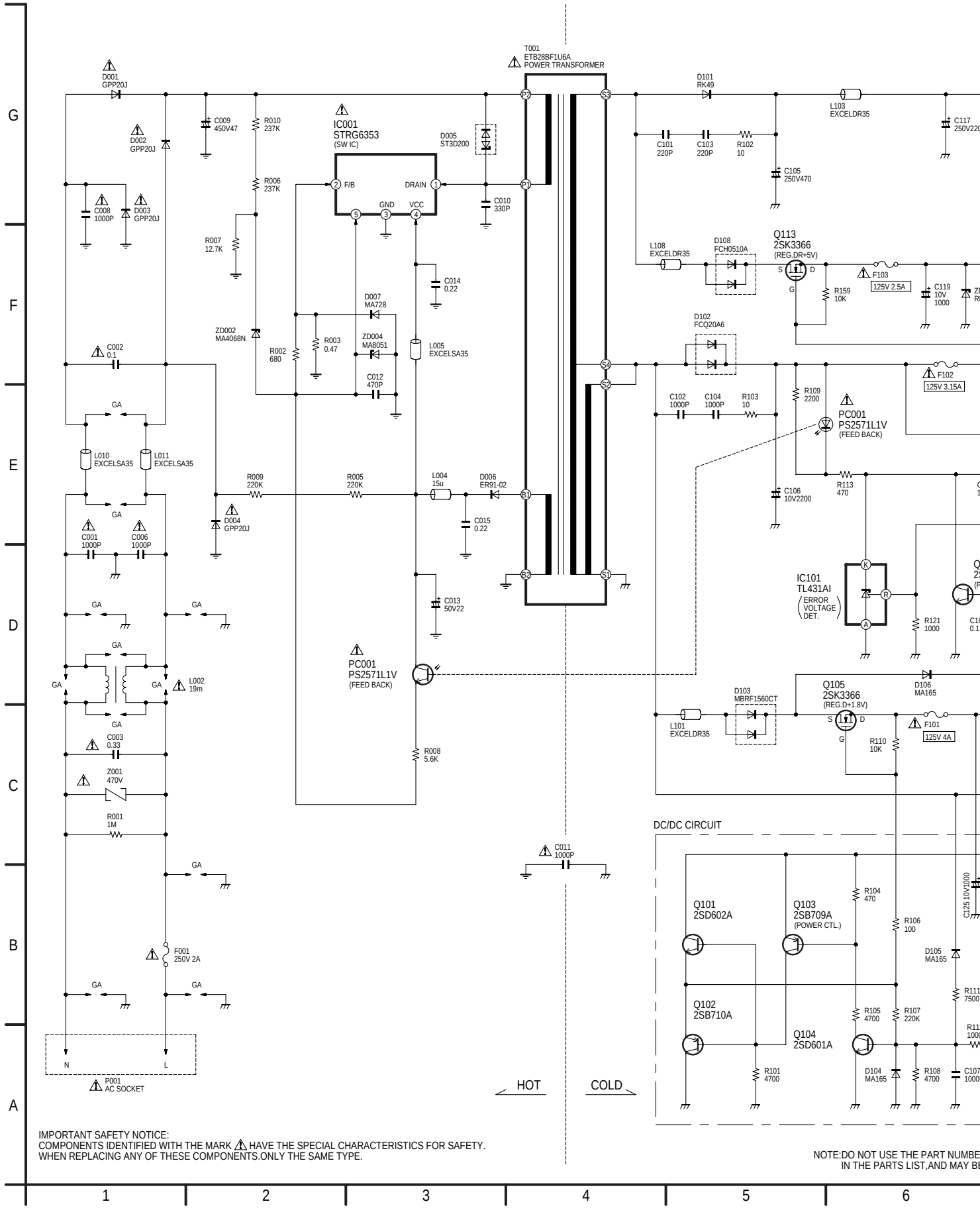


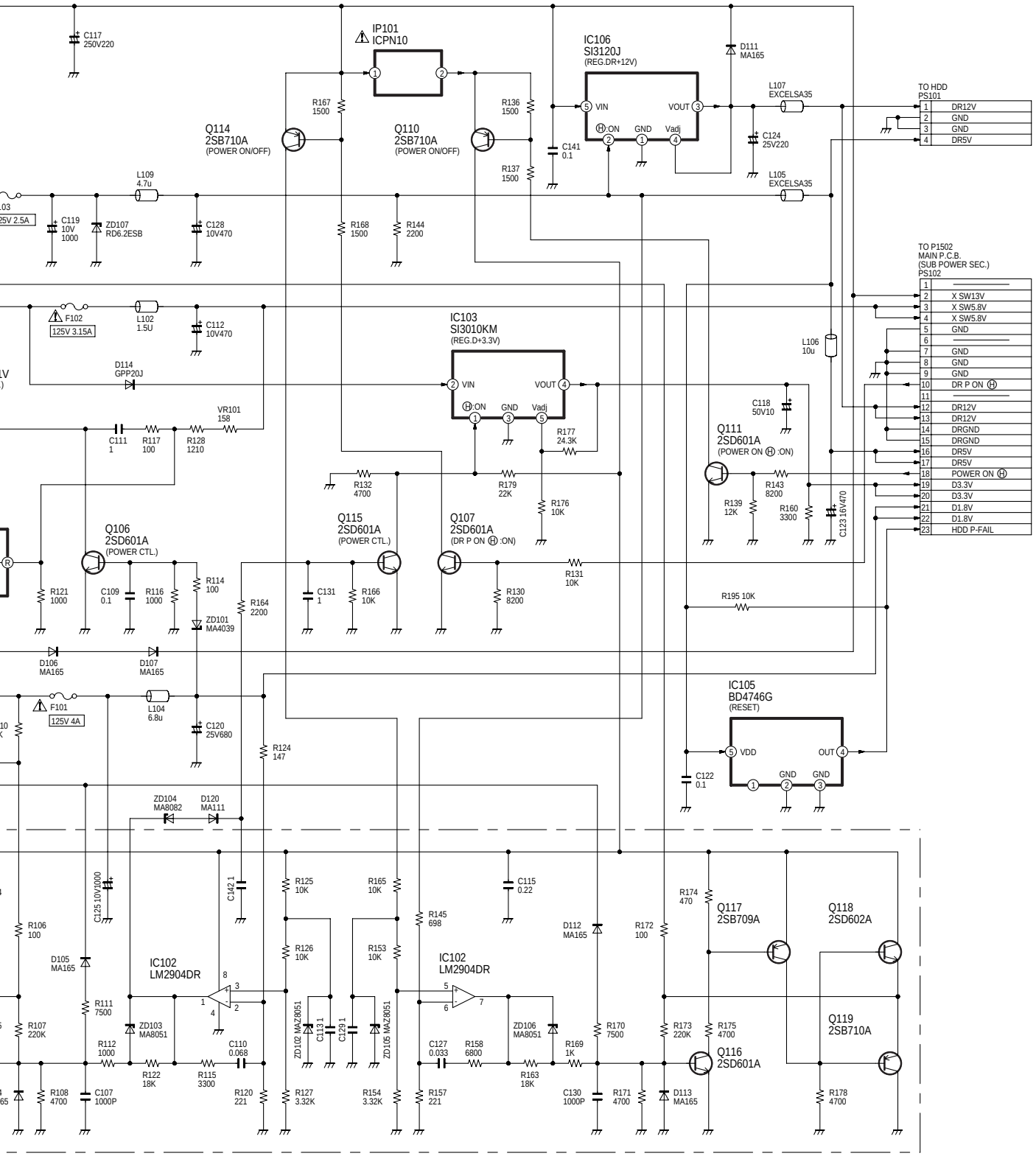


DMR-E85HEP
Interconnection
Schematic Diagram

6 | 7 | 8 | 9 | 10 | 11

17.2. Main Power Supply Schematic Diagram



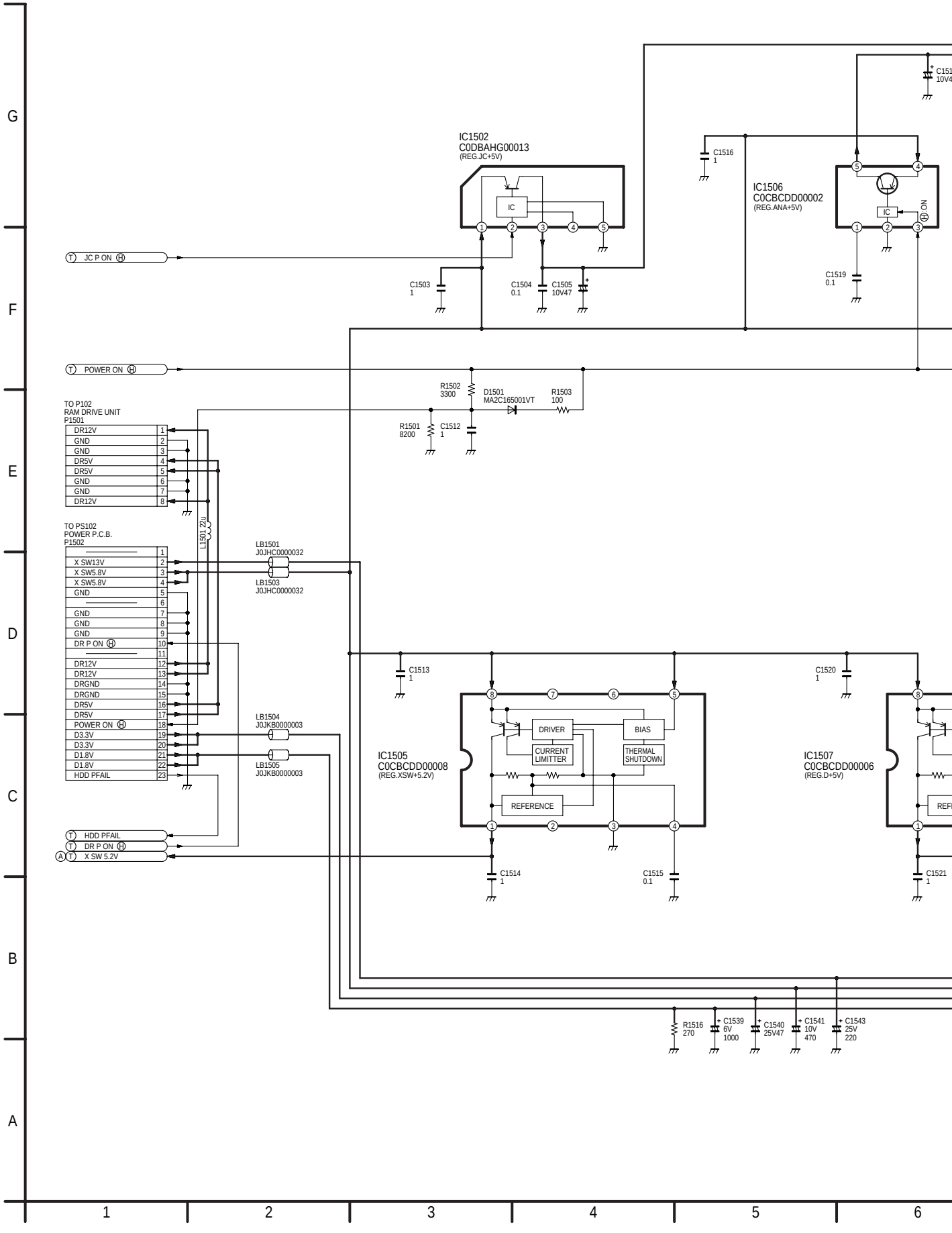


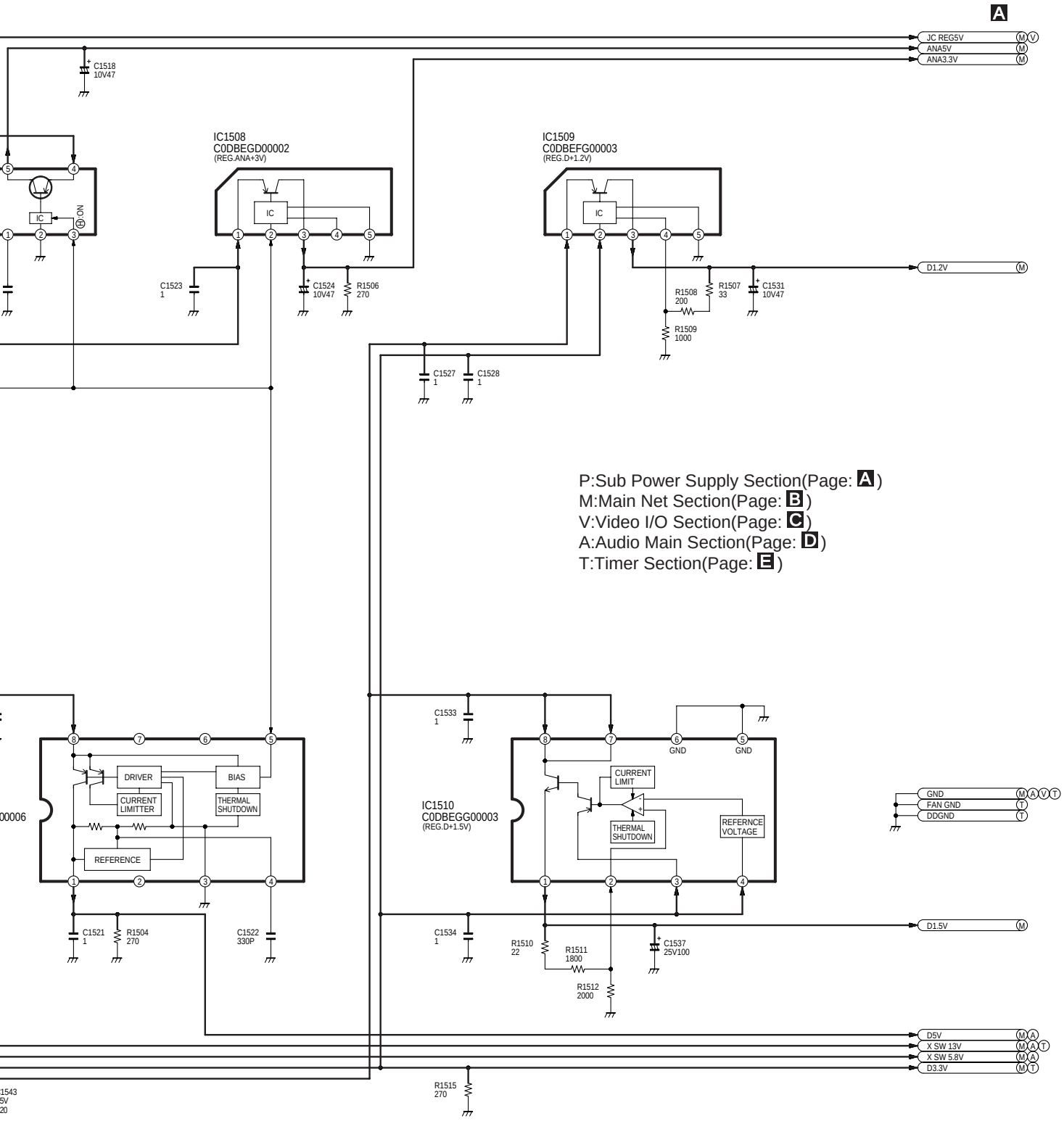
USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN
ARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Main Power Supply
Schematic Diagram

6	7	8	9	10	11

17.3. Sub Power Supply Section (Main P.C.B. (1/5)) Schematic Diagram (P)



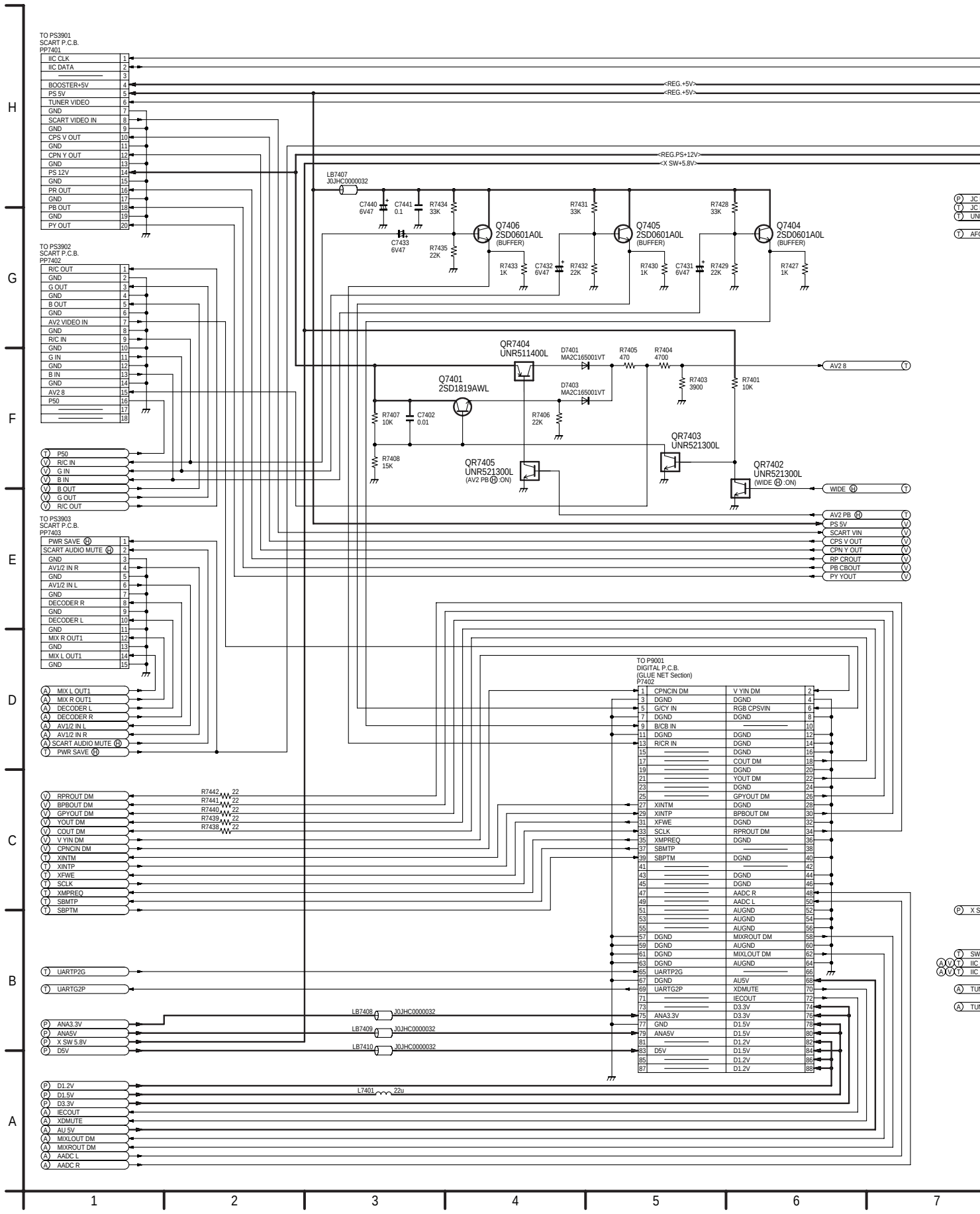


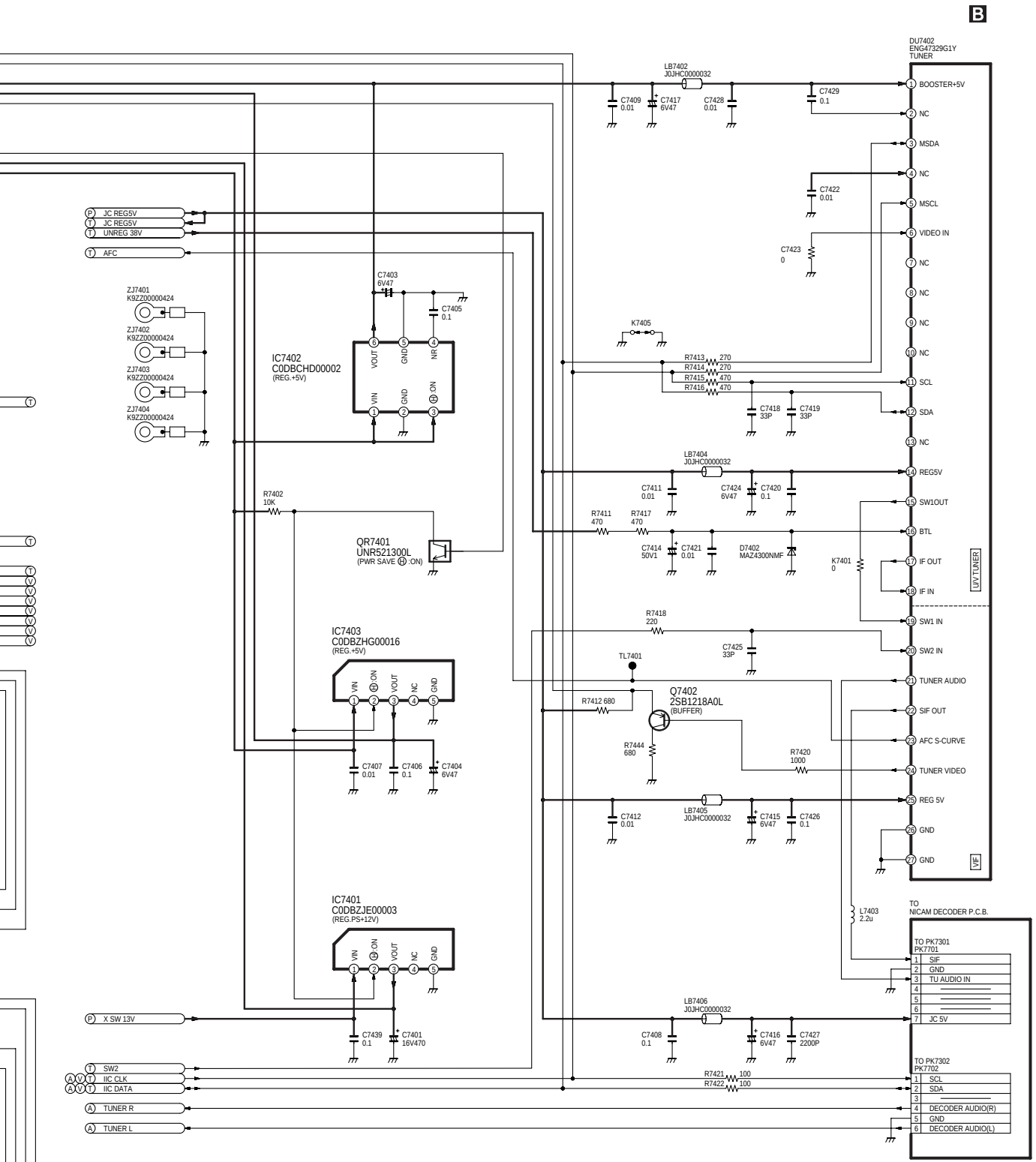
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Sub Power Supply Section
(Main P.C.B.(1/5))
Schematic Diagram(P)

6	7	8	9	10	11

17.4. Main Net Section (Main P.C.B. (2/5)) Schematic Diagram (M)





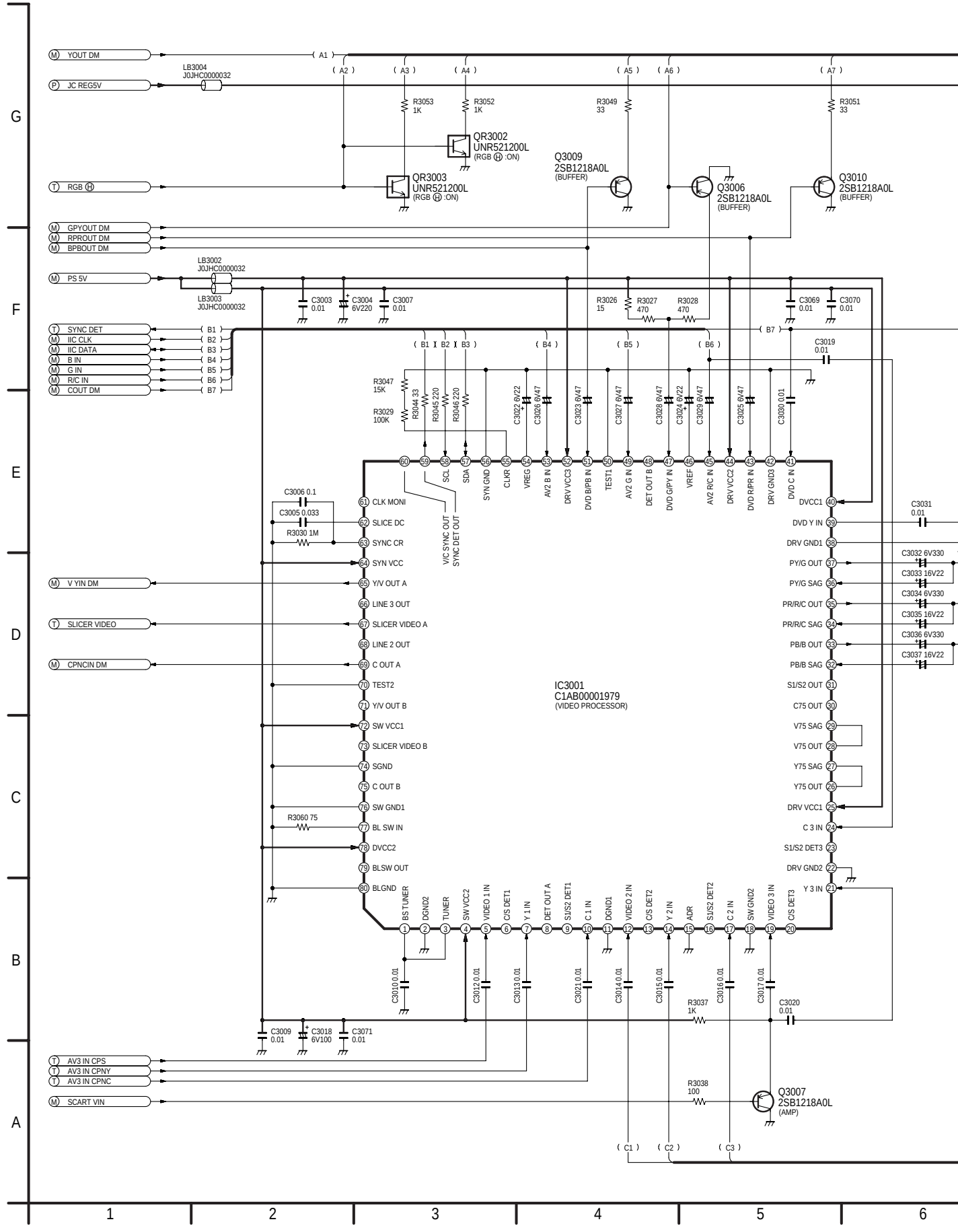
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

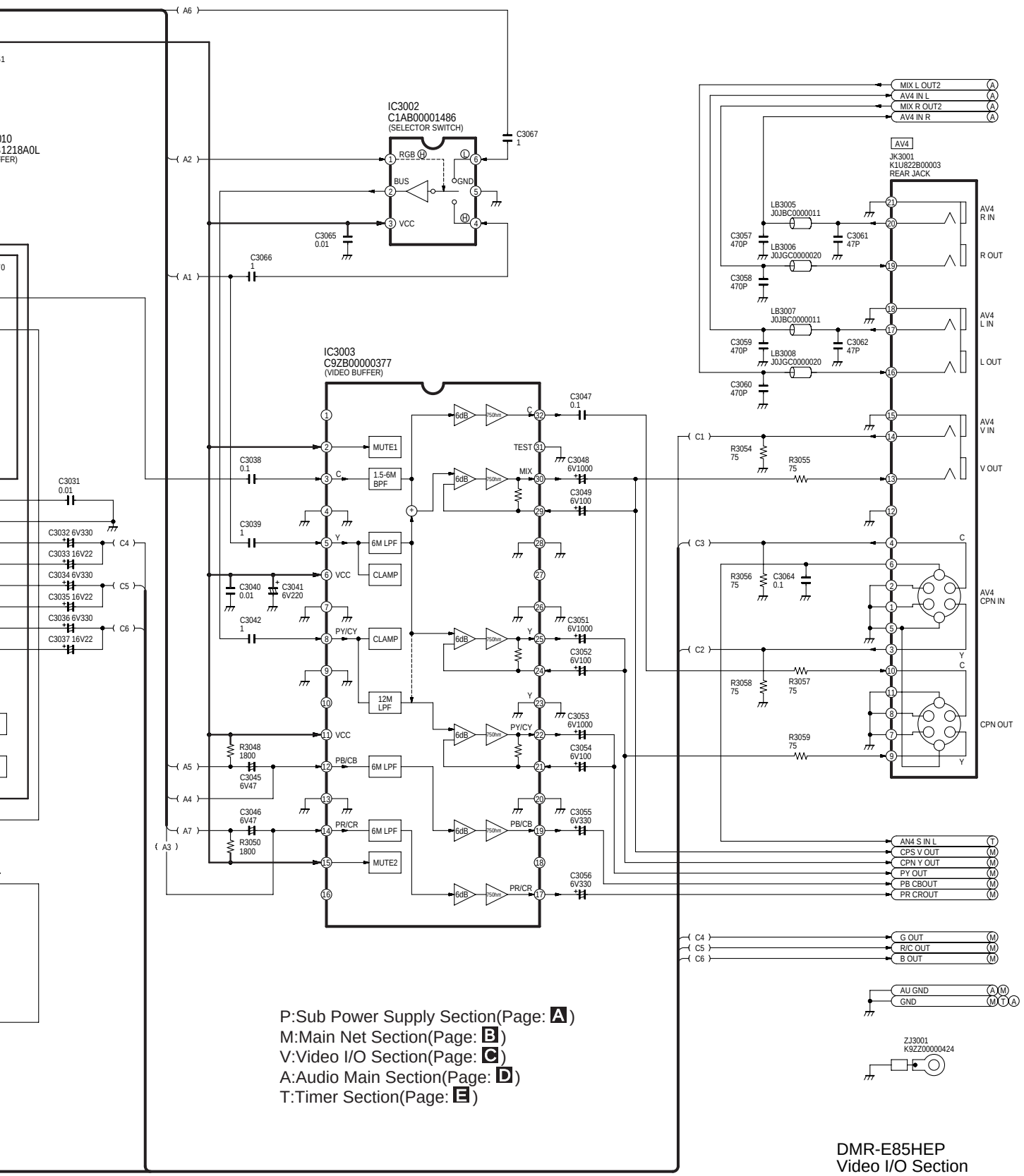
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Main Net Section
(Main P.C.B.(2/5))
Schematic Diagram(M)

7 | 8 | 9 | 10 | 11 | 12 | 13

17.5. Video I/O Section (Main P.C.B. (3/5)) Schematic Diagram (V)





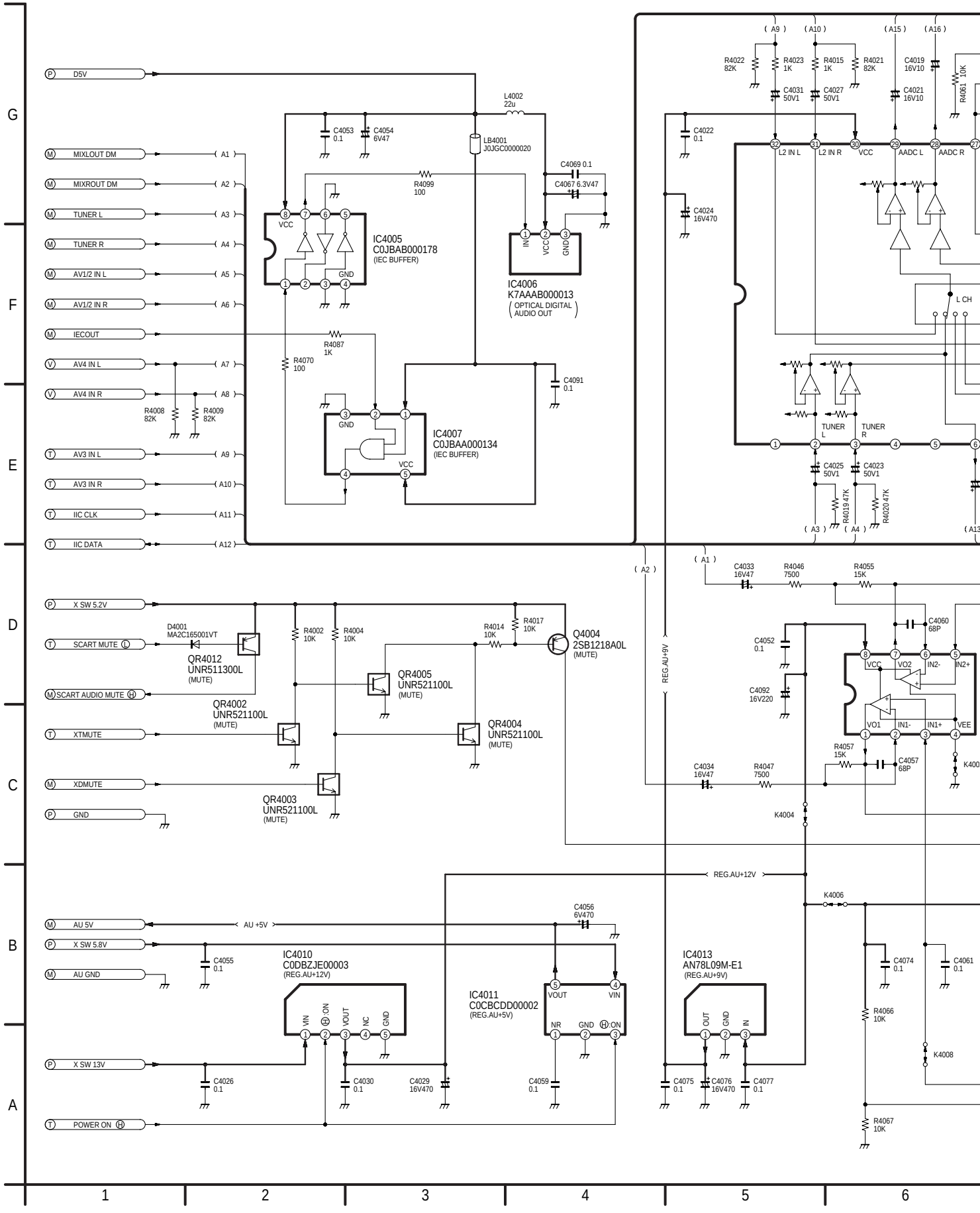
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

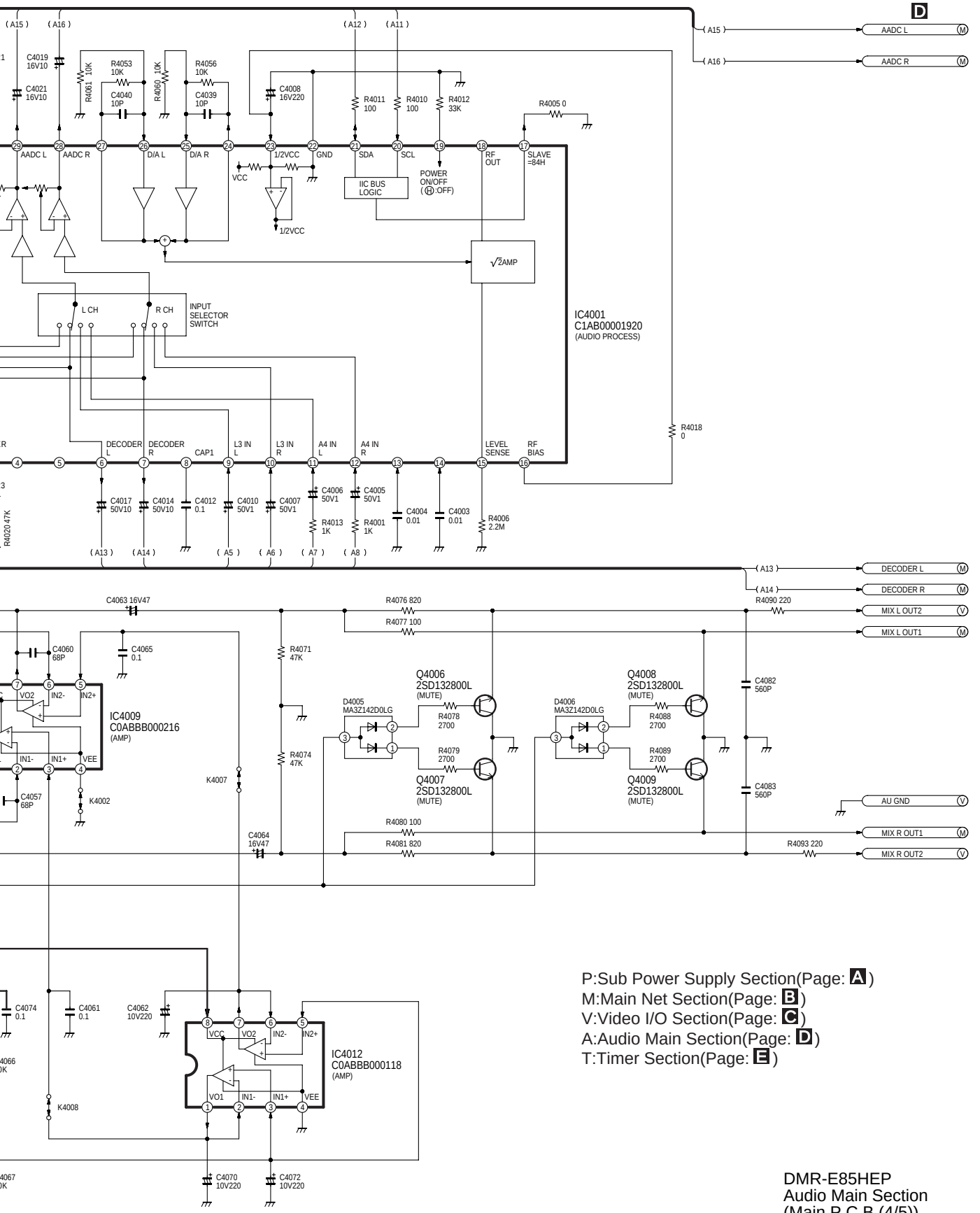
DMR-E85HEP
Video I/O Section
(Main P.C.B.(3/5))
Schematic Diagram(V)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

6 | 7 | 8 | 9 | 10 | 11

17.6. Audio Main Section (Main P.C.B. (4/5)) Schematic Diagram (A)





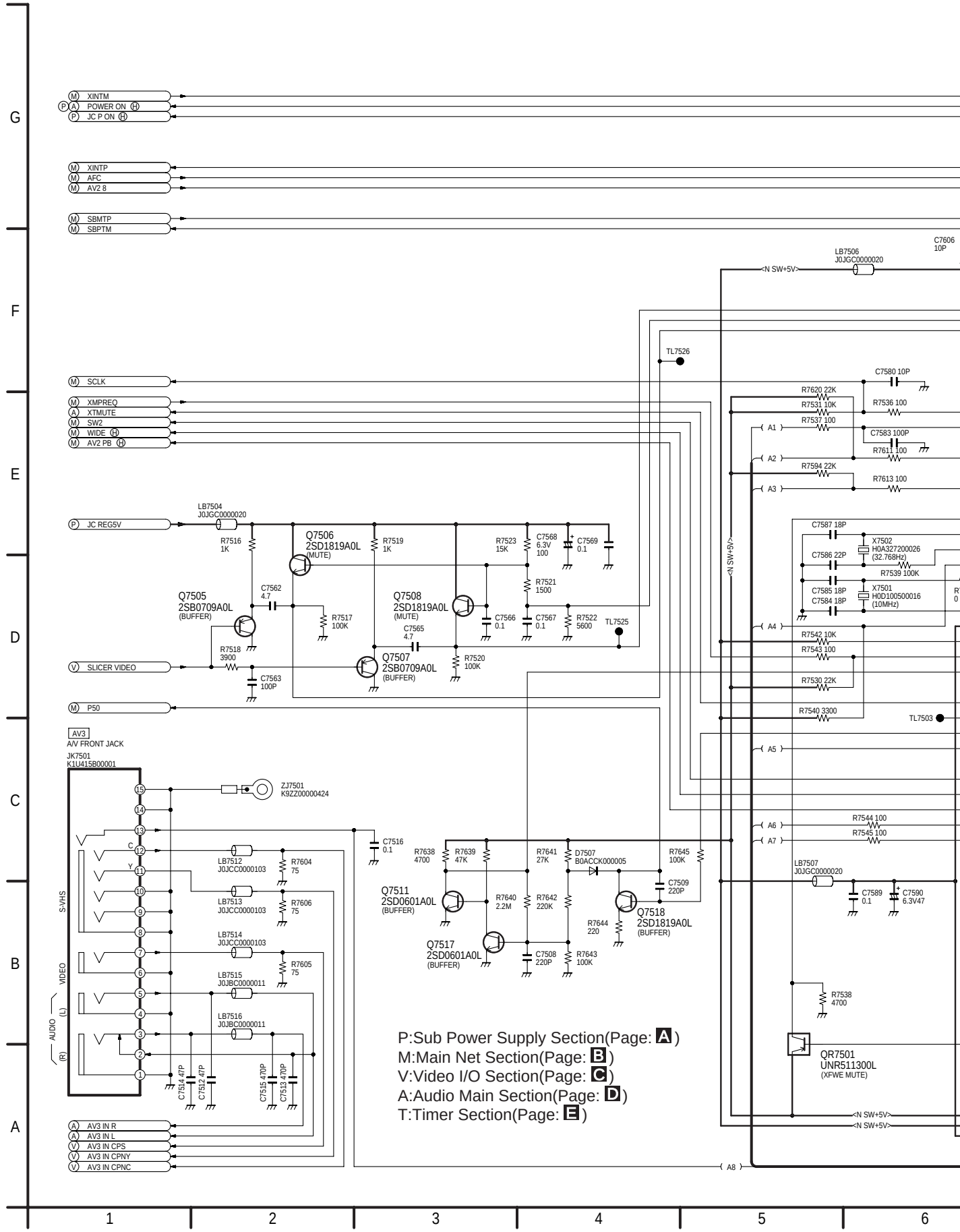
P:Sub Power Supply Section(Page: A)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)

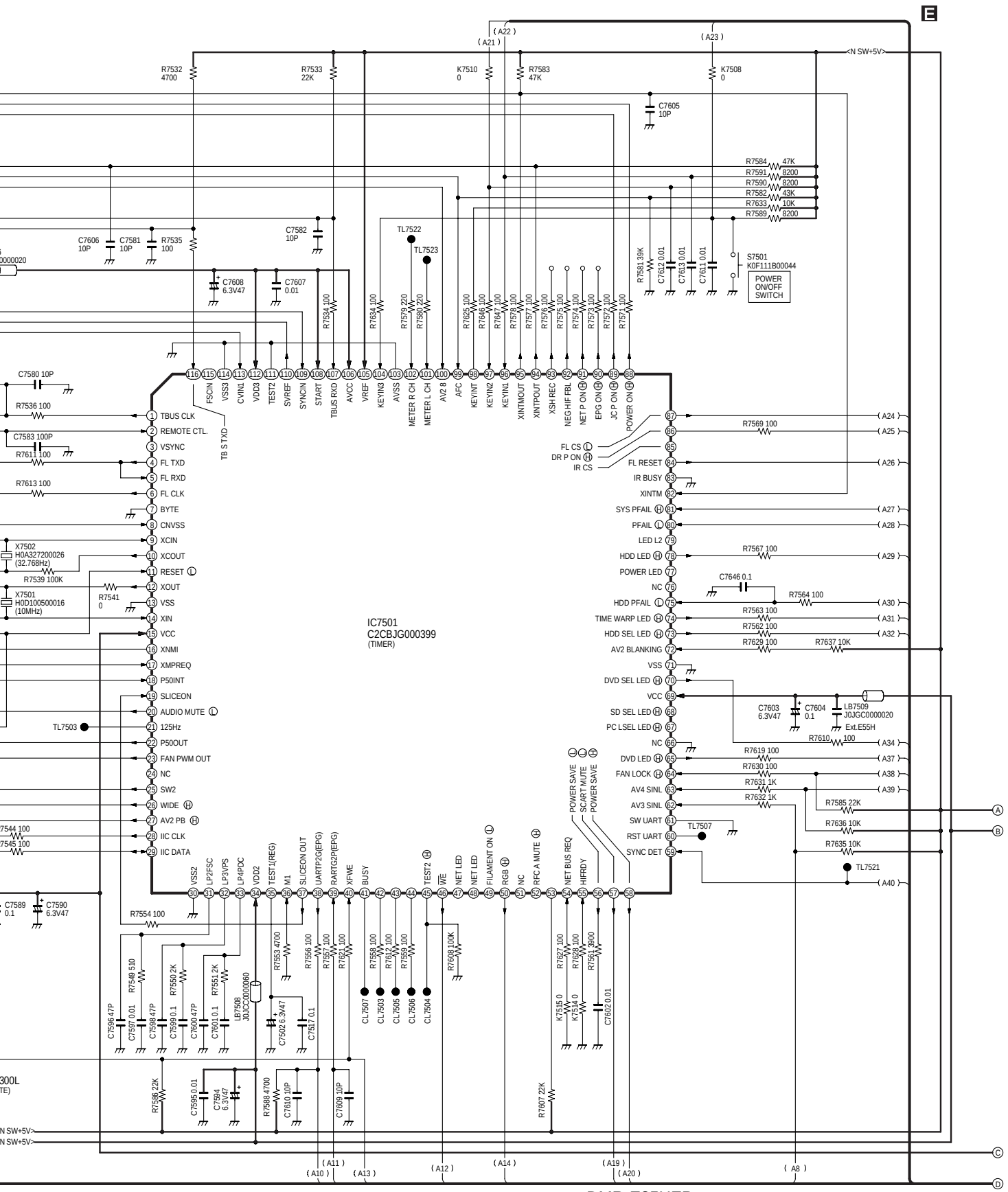
DMR-E85HEP
Audio Main Section
(Main P.C.B.(4/5))
Schematic Diagram(A)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

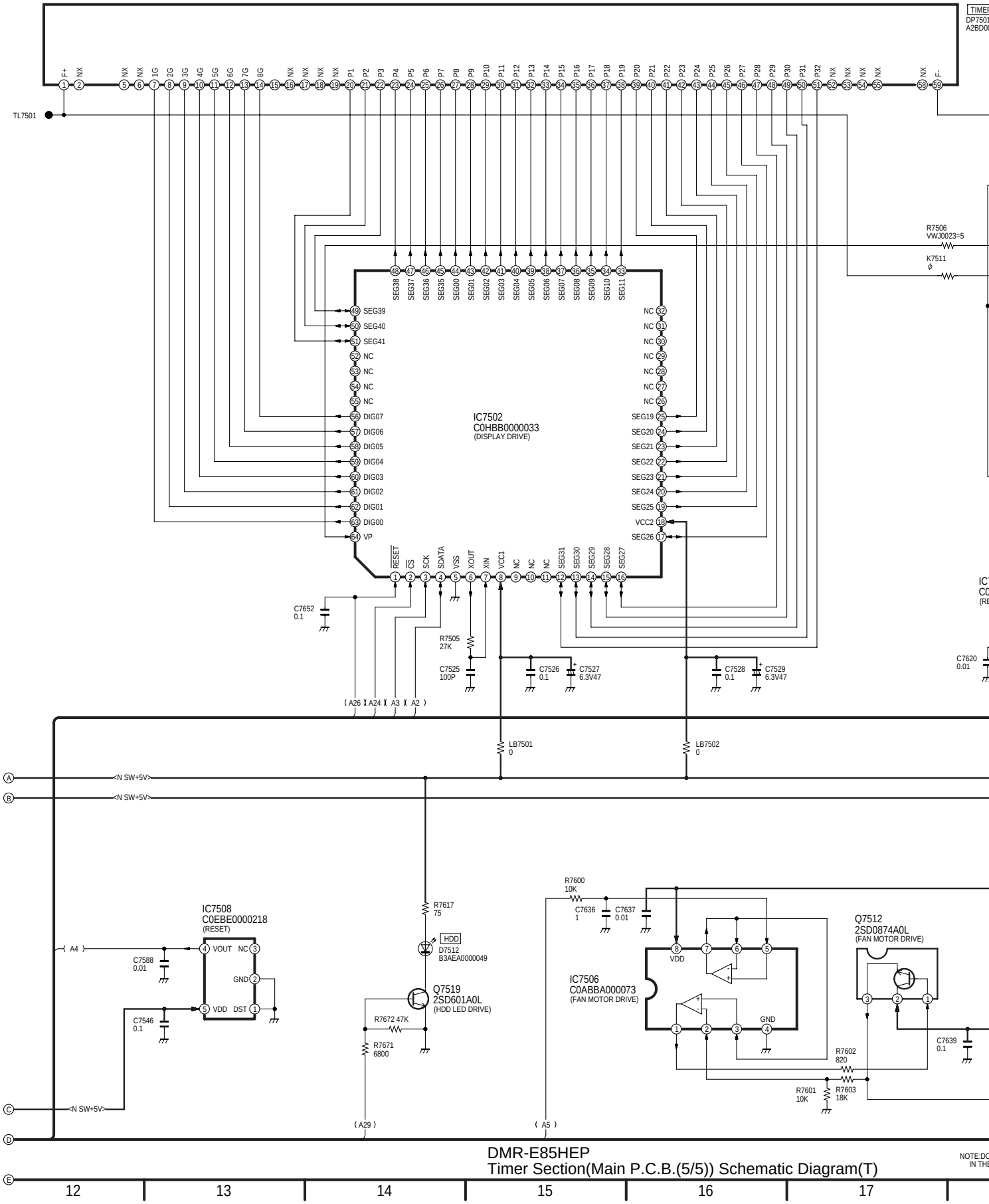
6	7	8	9	10	11

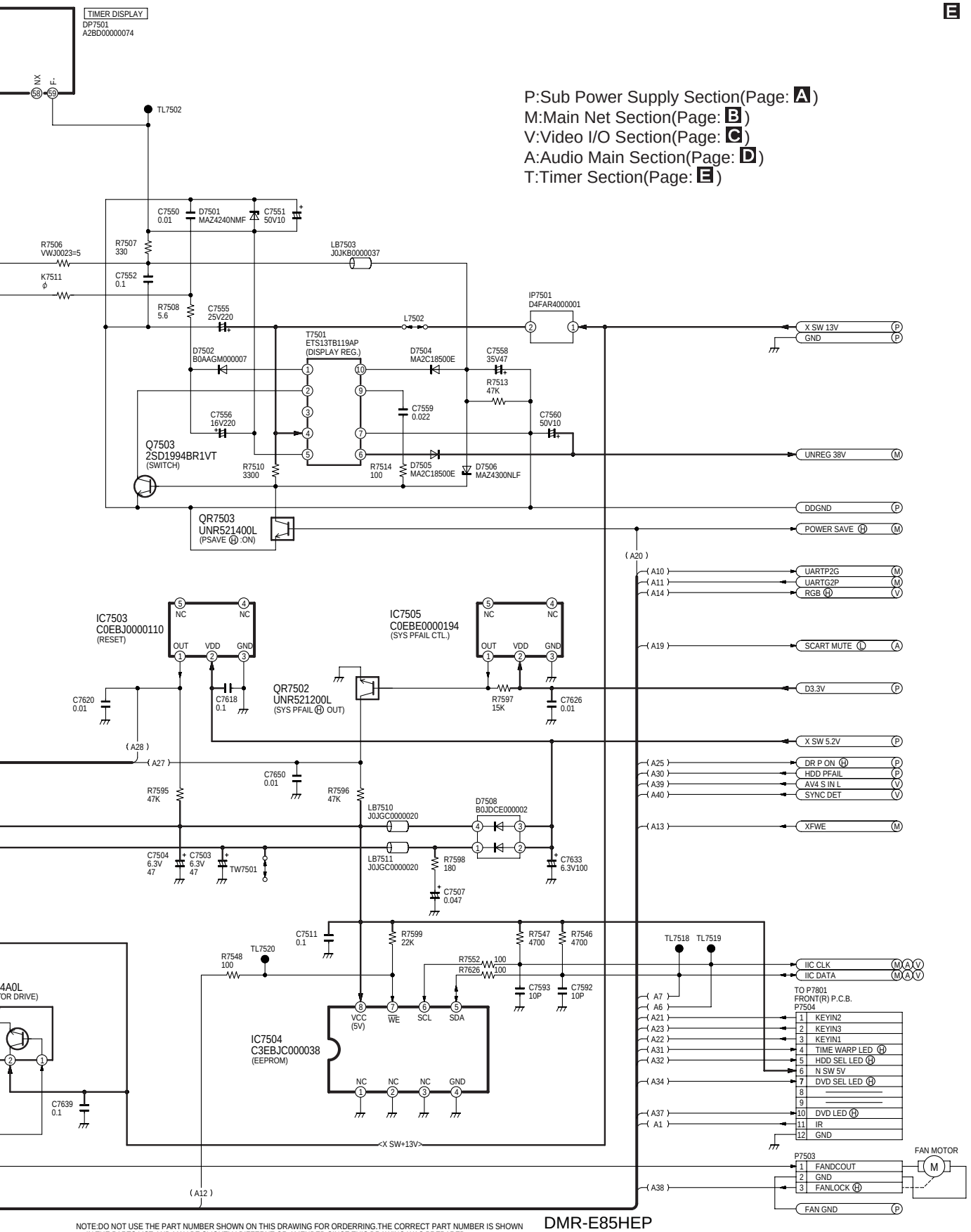
17.7. Timer Section (Main P.C.B. (5/5)) Schematic Diagram (T)





DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)


TL7501
IC7502
C0HBB0000033
(DISPLAY DRIVE)
IC7508
C0EBE0000218
(RESET)
IC7506
C0ABBA000073
(FAN MOTOR DRIVE)
Q7519
2SD601A0L
(HDD LED DRIVE)
Q7512
2SD0874A0L
(FAN MOTOR DRIVE)
D7512
B3AEA0000049
HDD
R7506
VWJ0023=5
K7511
LB7501
0
LB7502
0
R7505
27K
R7617
75
R7672 47K
R7671
6800
R7600
10K
R7601
10K
R7602
820
R7603
18K
C7525
100P
C7526
0.1
C7527
6.3V47
C7528
0.1
C7529
6.3V47
C7588
0.01
C7546
0.1
C7636
1
C7637
0.01
C7639
0.1
C7652
0.1
C7620
0.01
<N SW+5V>
DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)

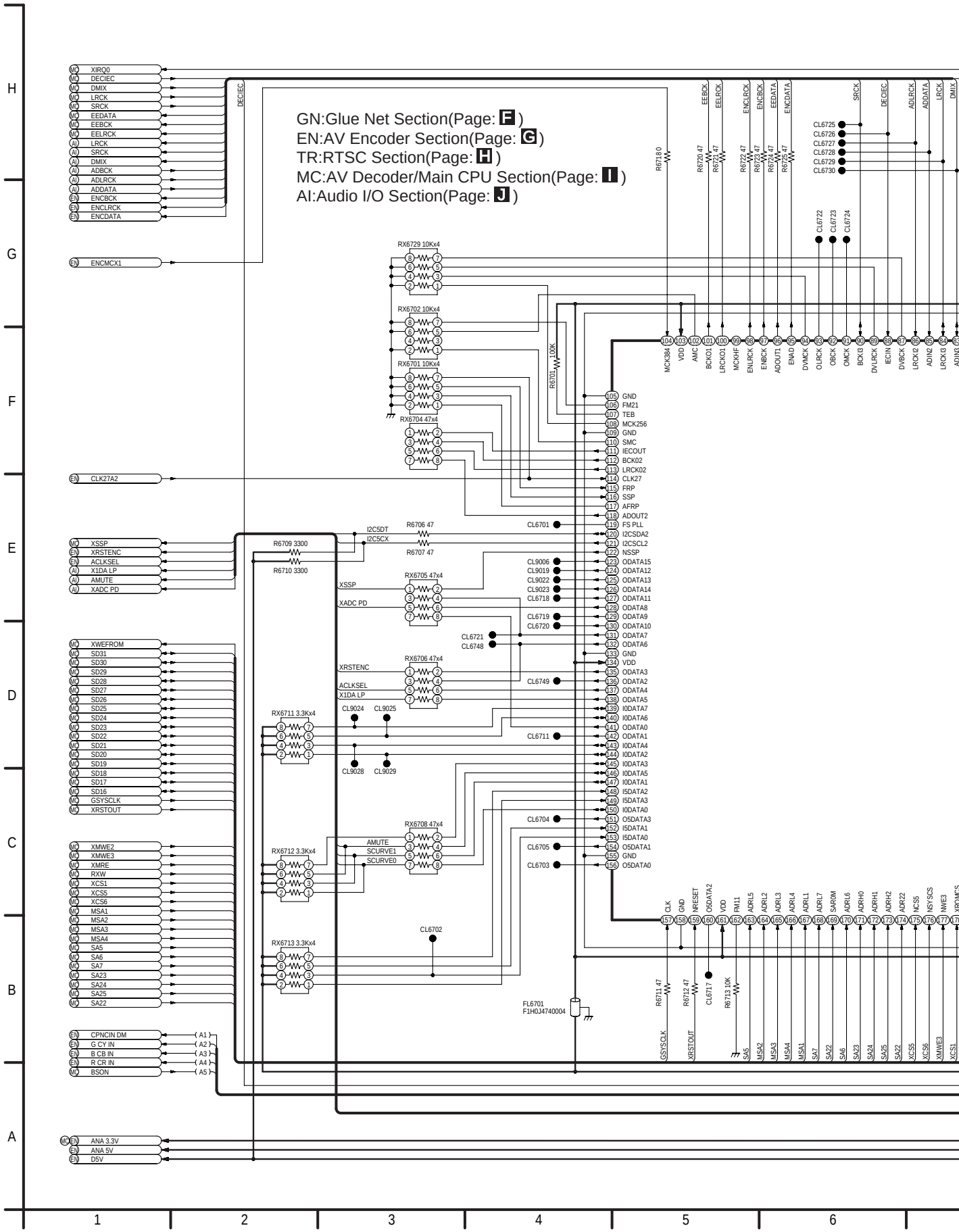


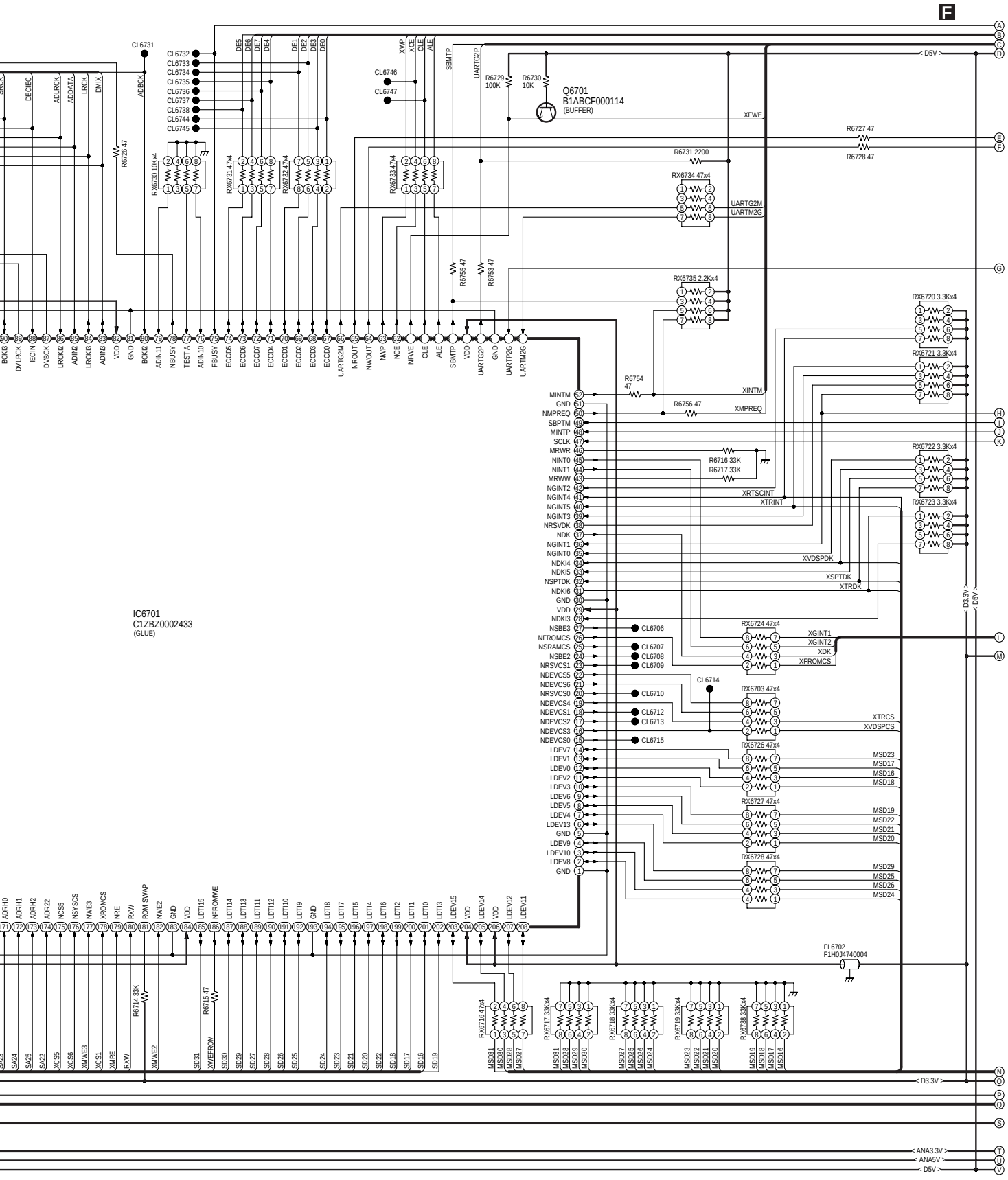
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Timer Section(Main P.C.B.(5/5)) Schematic Diagram(T)

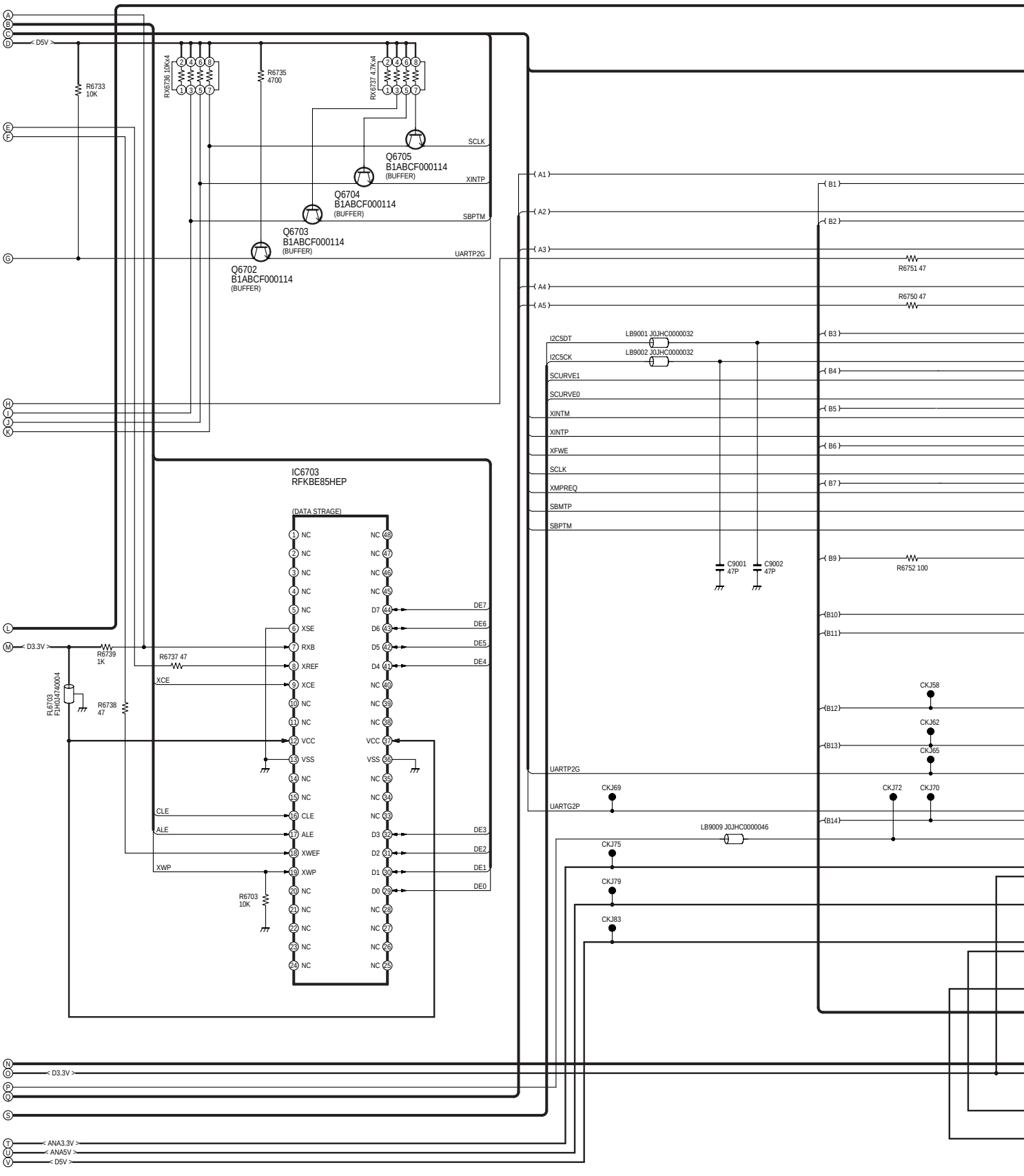
18 | 19 | 20 | 21 | 22

17.8. Glue Net Section (Digital P.C.B. (1/5)) Schematic Diagram (GN)

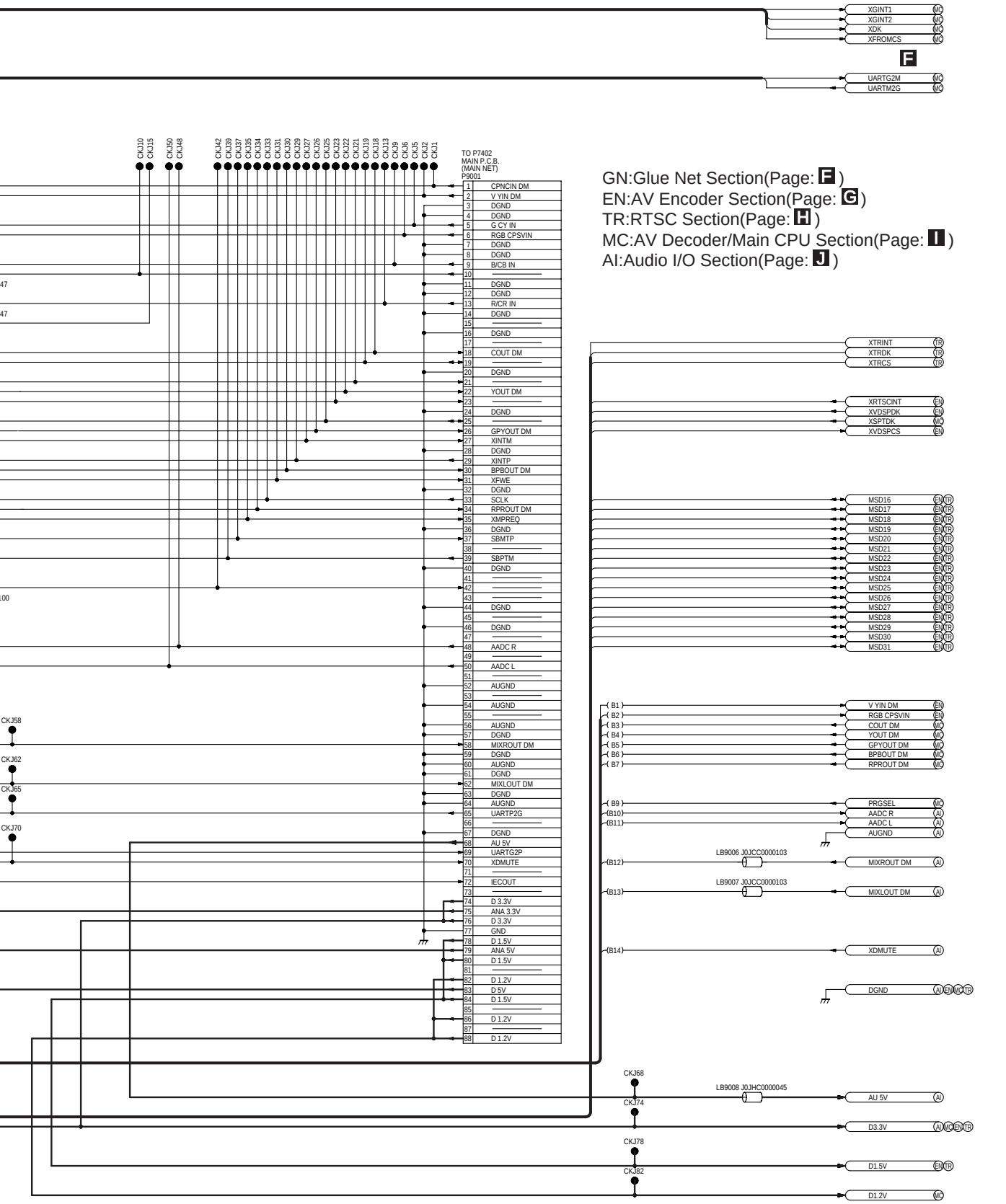

GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)



DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5)) Schematic Diagram(GN)



DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5)) Schematic Diagram(GN)

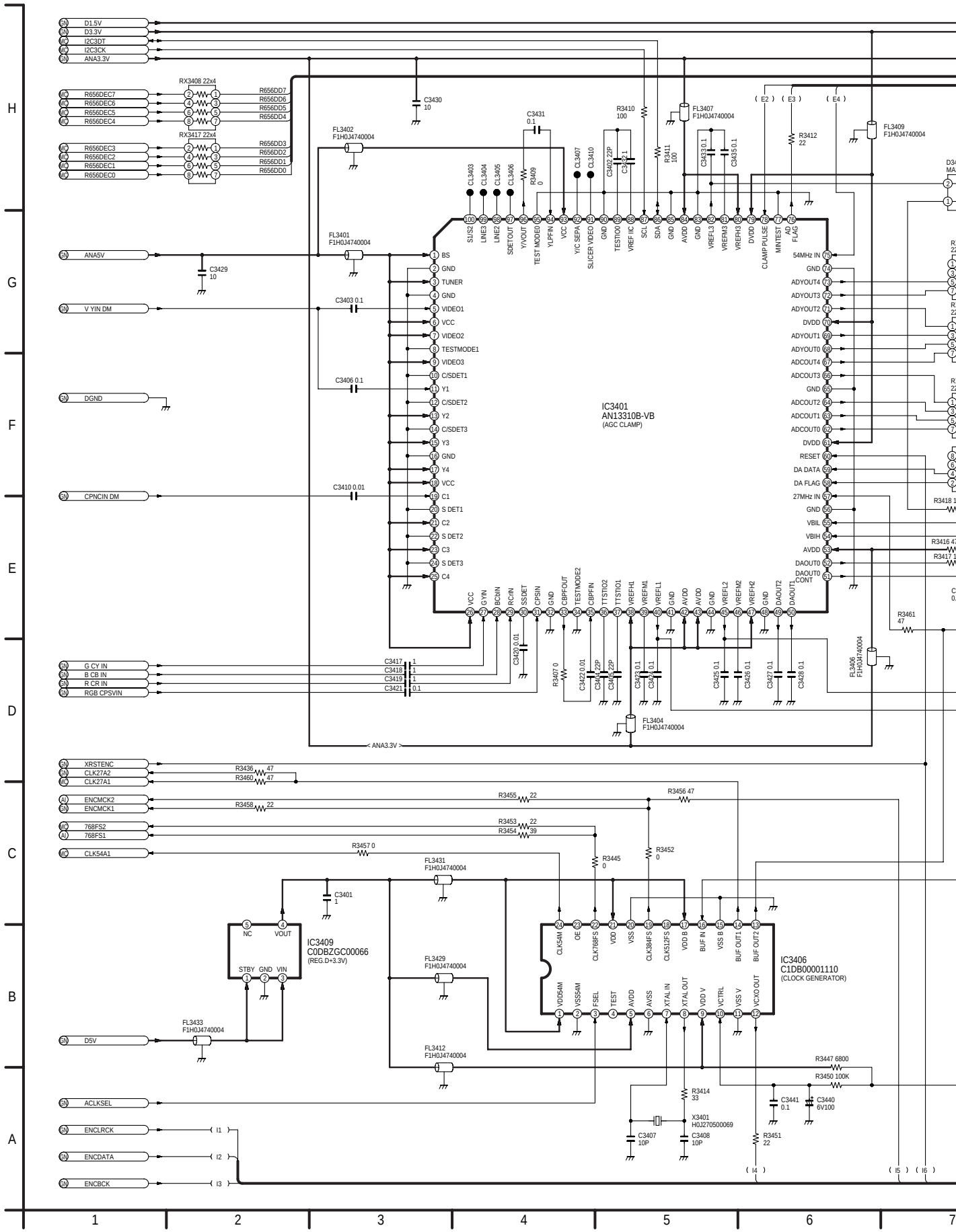


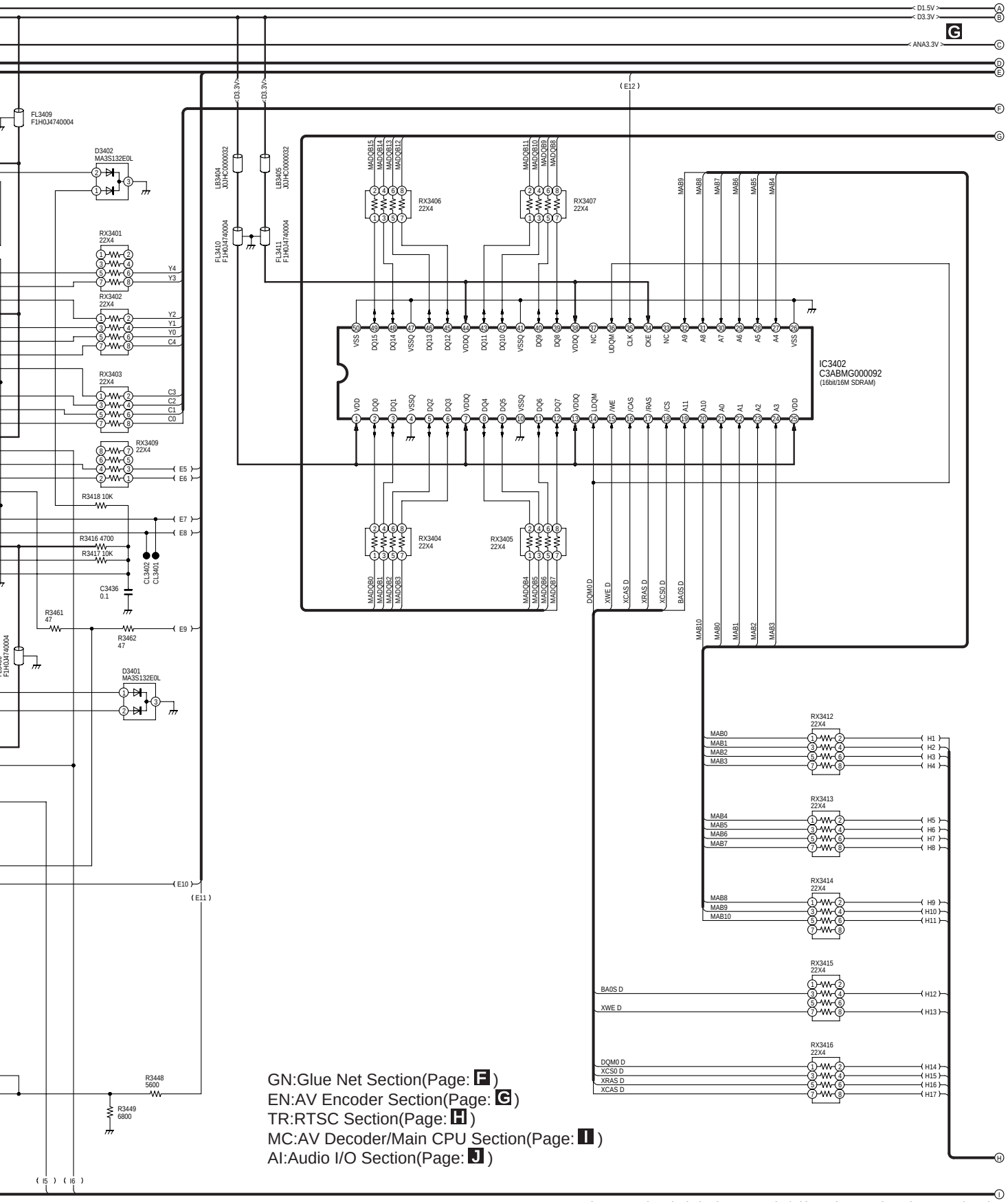
DMR-E85HEP
Glue Net Section(Digital P.C.B.(1/5))
Schematic Diagram(GN)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

19 20 21 22 23 24 25

17.9. AV Encoder Section (Digital P.C.B. (2/5)) Schematic Diagram (EN)

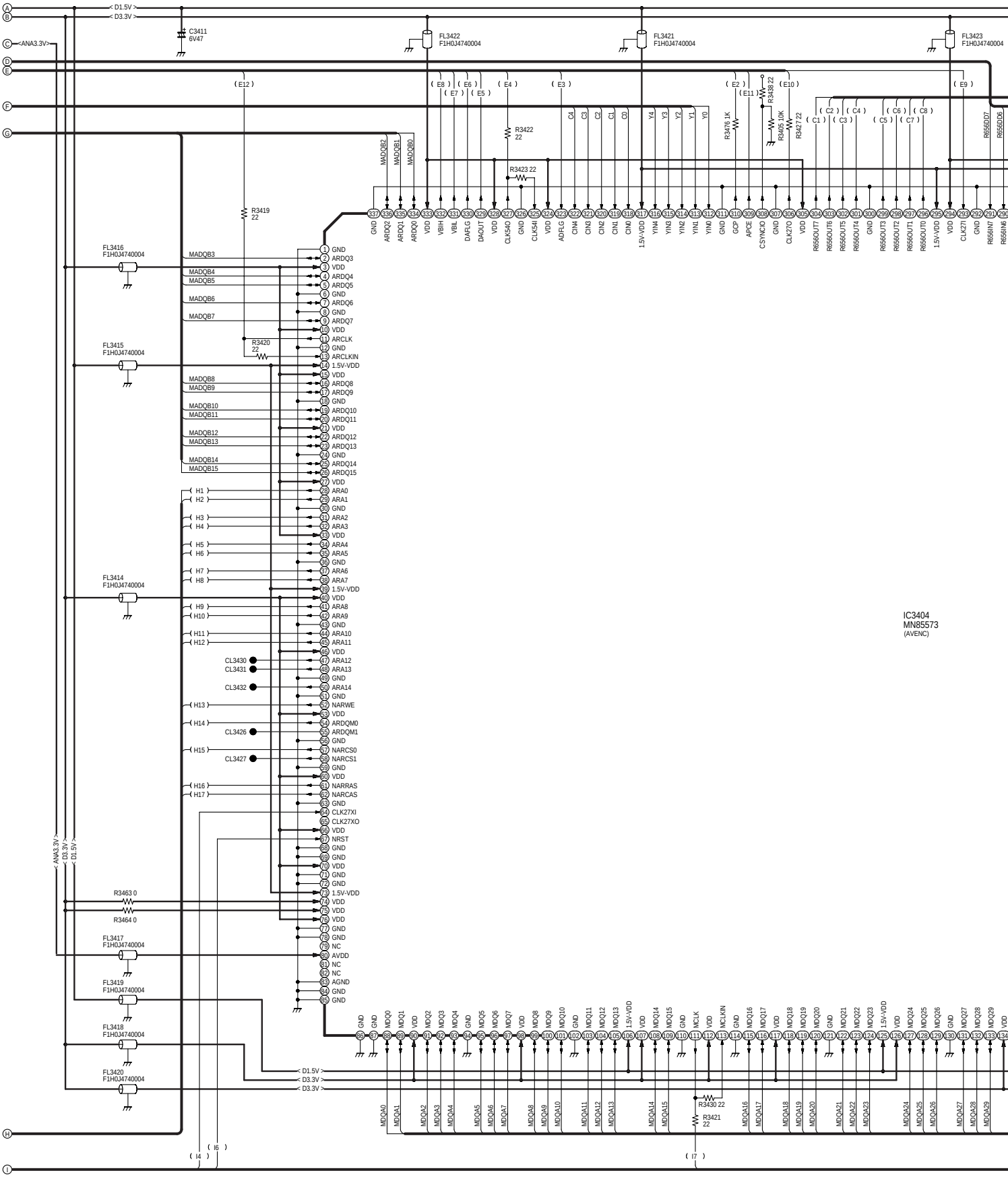




GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

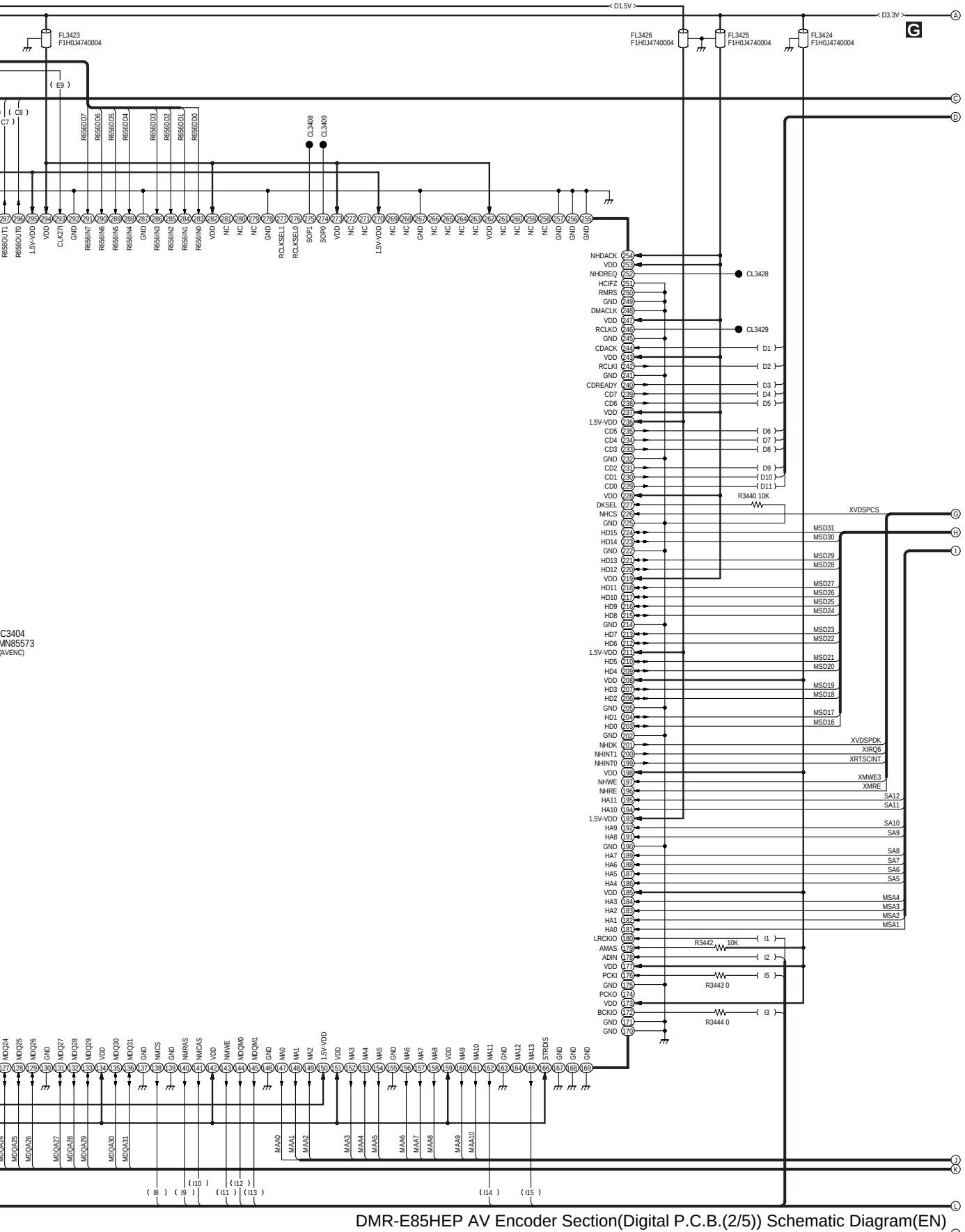
DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

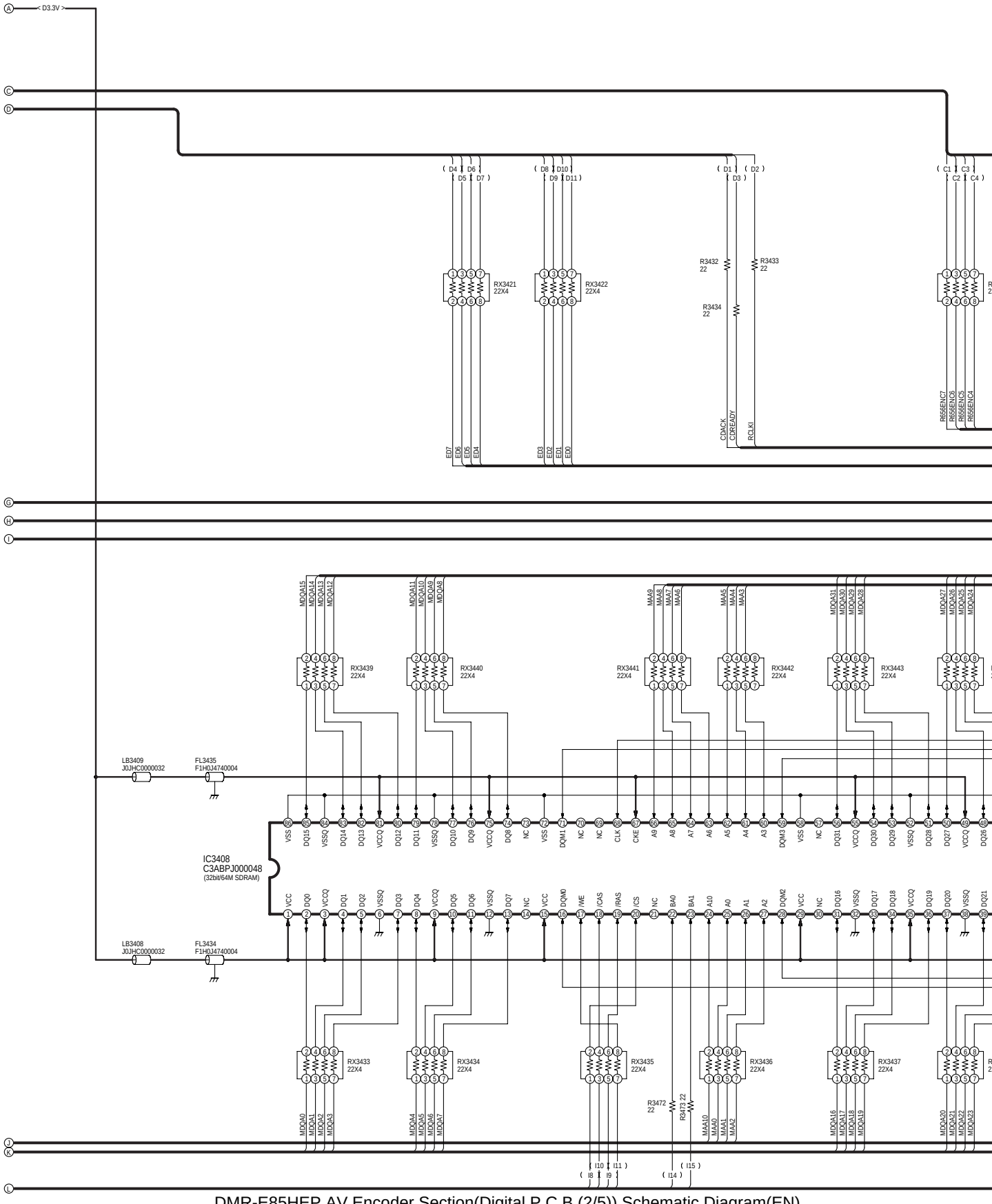
7 8 9 10 11 12 13



DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

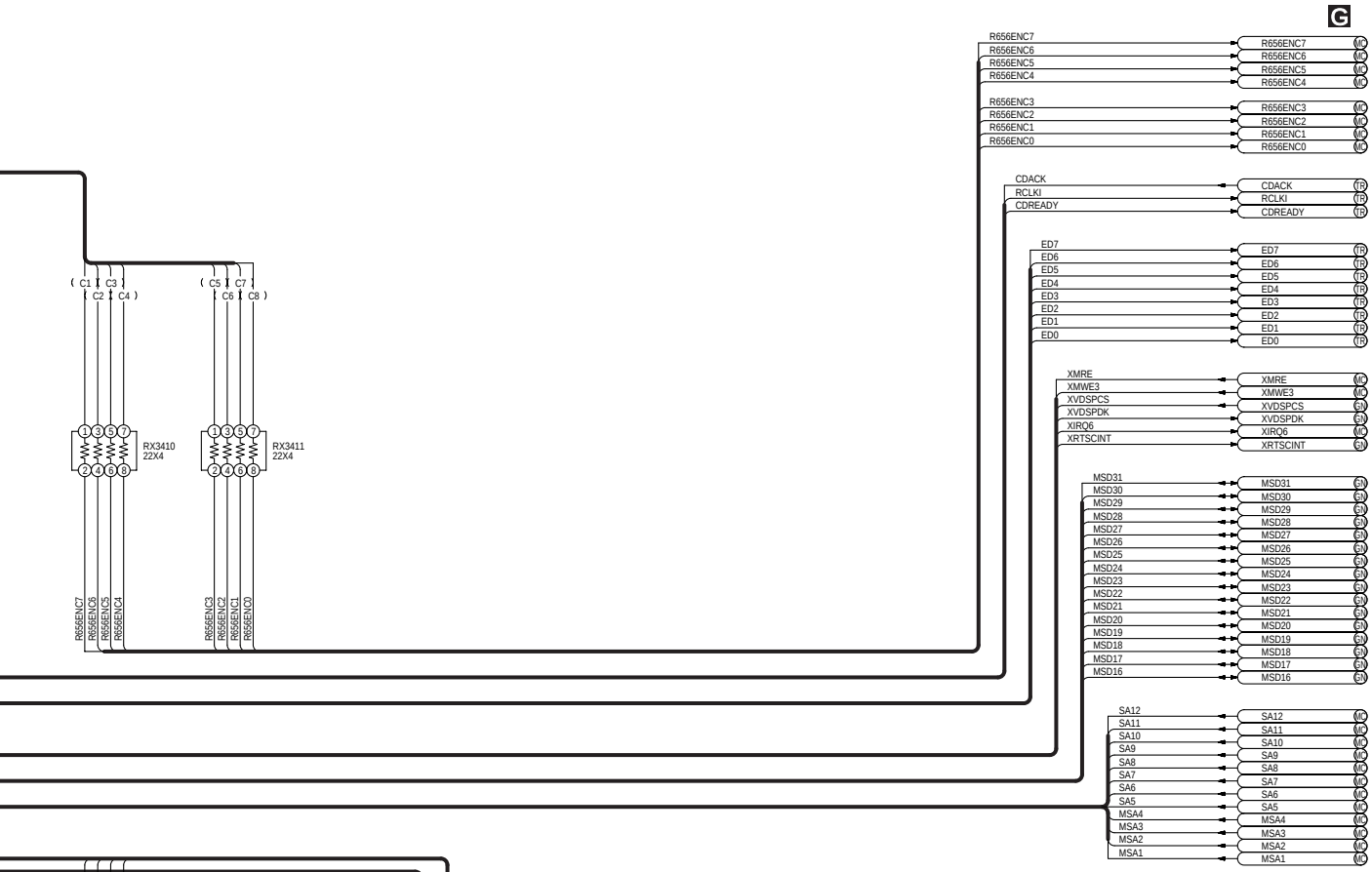
13 14 15 16 17 18 19

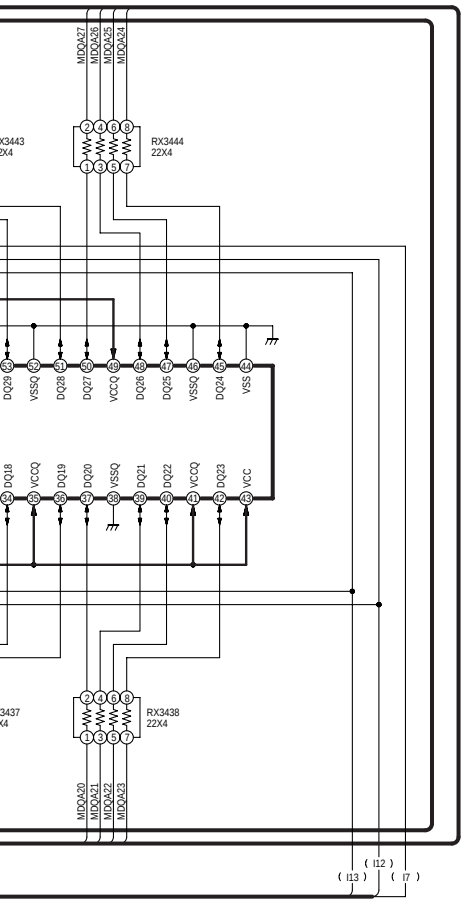

D1.5V
D3.3V
FL3423 F1H0J4740004
FL3426 F1H0J4740004
FL3425 F1H0J4740004
FL3424 F1H0J4740004
E9
C8
C7
CL3408
CL3409
CL3428
CL3429
R3440 10K
R3442 10K
R3443 0
R3444 0
C3404
MN85573
(AVENC)
XVDSPCS
XVDSPDK
XIRQ6
XRTSCINT
XMWE3
XMRE
MSD31
MSD30
MSD29
MSD28
MSD27
MSD26
MSD25
MSD24
MSD23
MSD22
MSD21
MSD20
MSD19
MSD18
MSD17
MSD16
SA12
SA11
SA10
SA9
SA8
SA7
SA6
SA5
MSA4
MSA3
MSA2
MSA1
DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)
20
21
22
23
24
25



DMR-E85HEP AV Encoder Section(Digital P.C.B.(2/5)) Schematic Diagram(EN)

26 | 27 | 28 | 29 | 30 | 31 | 32





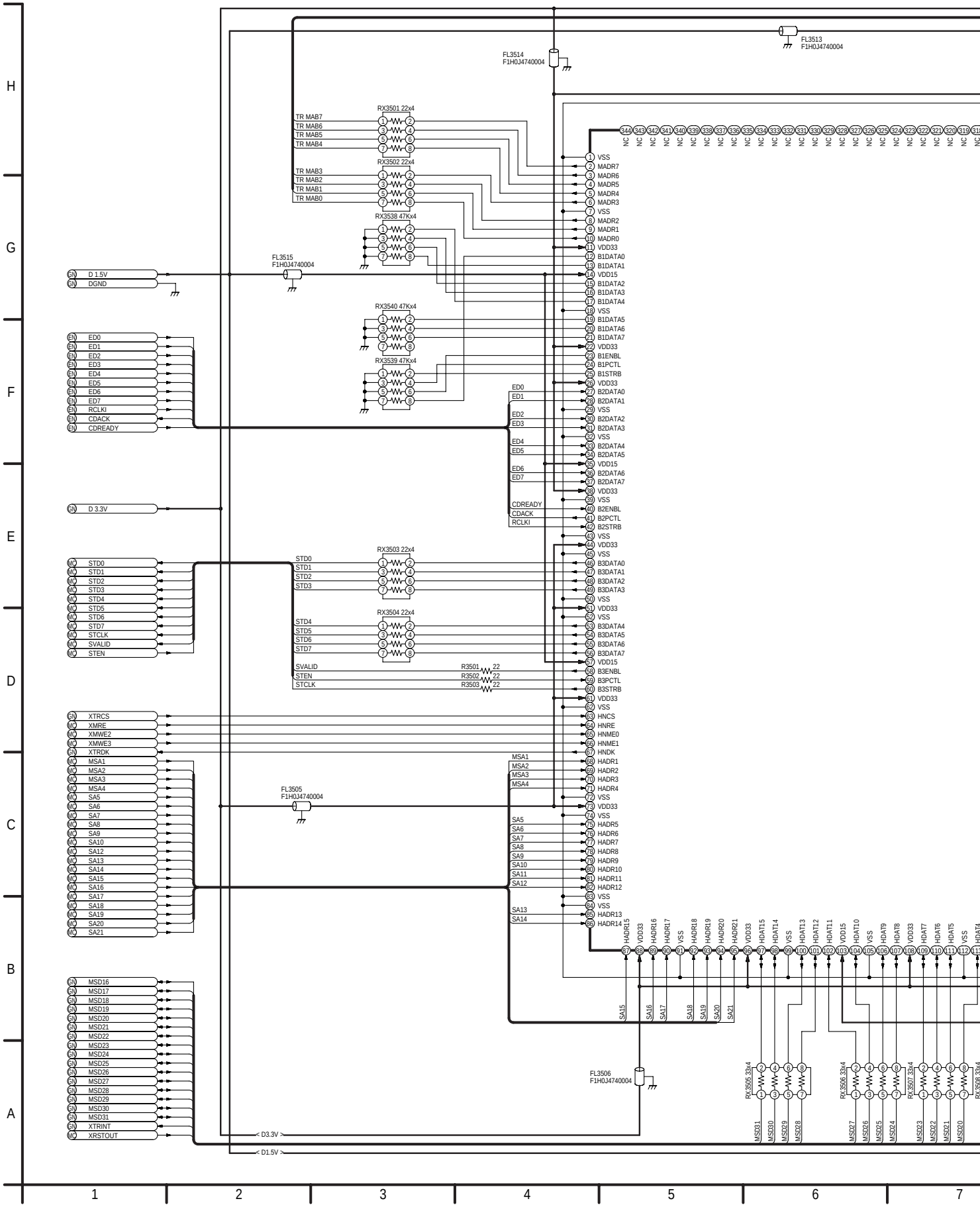
GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE
SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

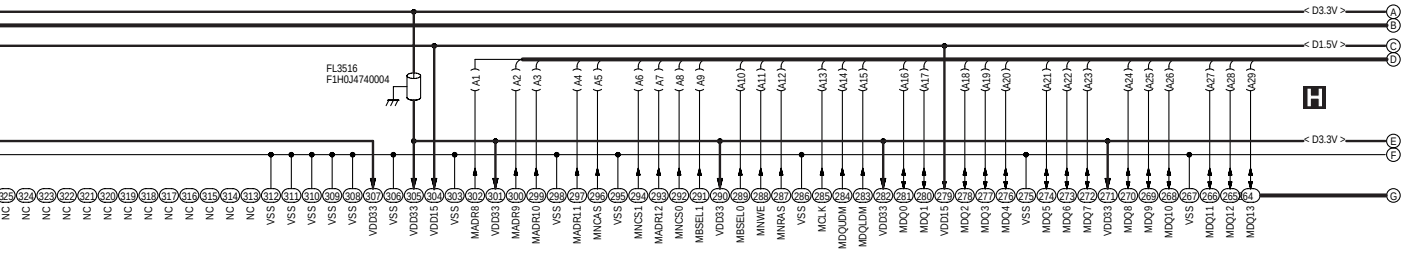
DMR-E85HEP
AV Encoder Section
(Digital P.C.B.(2/5))
Schematic Diagram(EN)

32 33 34 35 36 37

17.10. Real Time Stream Control (RTSC) Section (Digital P.C.B. (3/5)) Schematic Diag

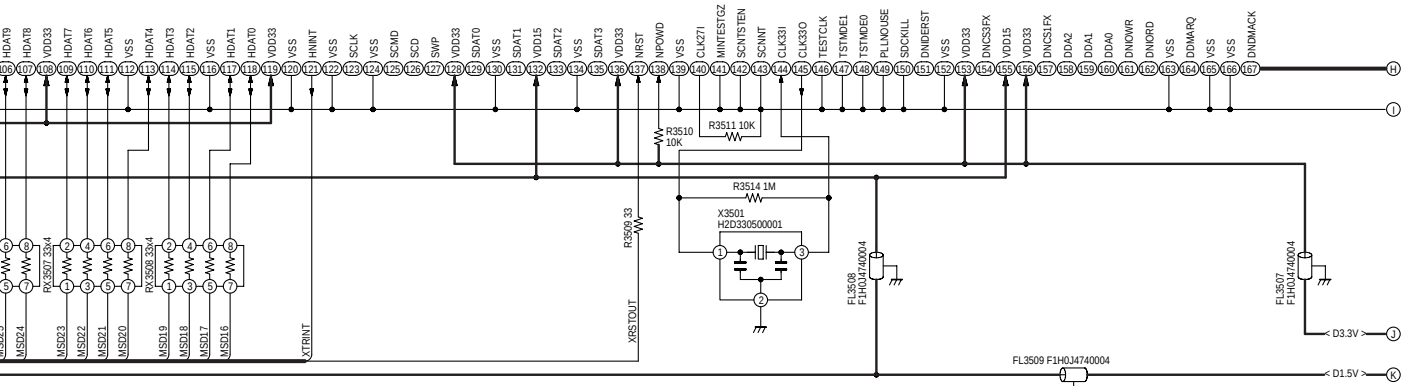


atic Diagram (TR)



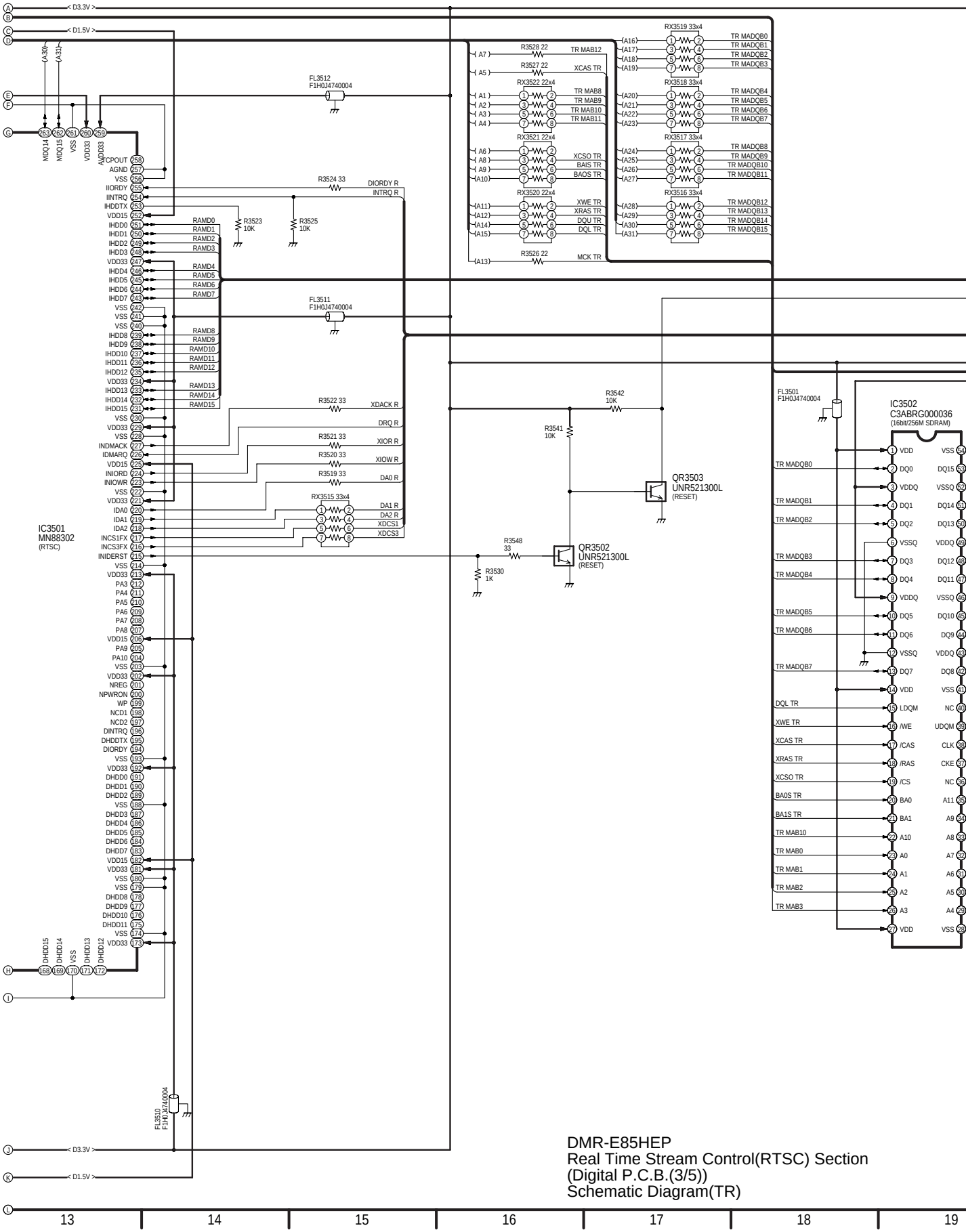
GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

IC3501
MN88302
(RTSC)

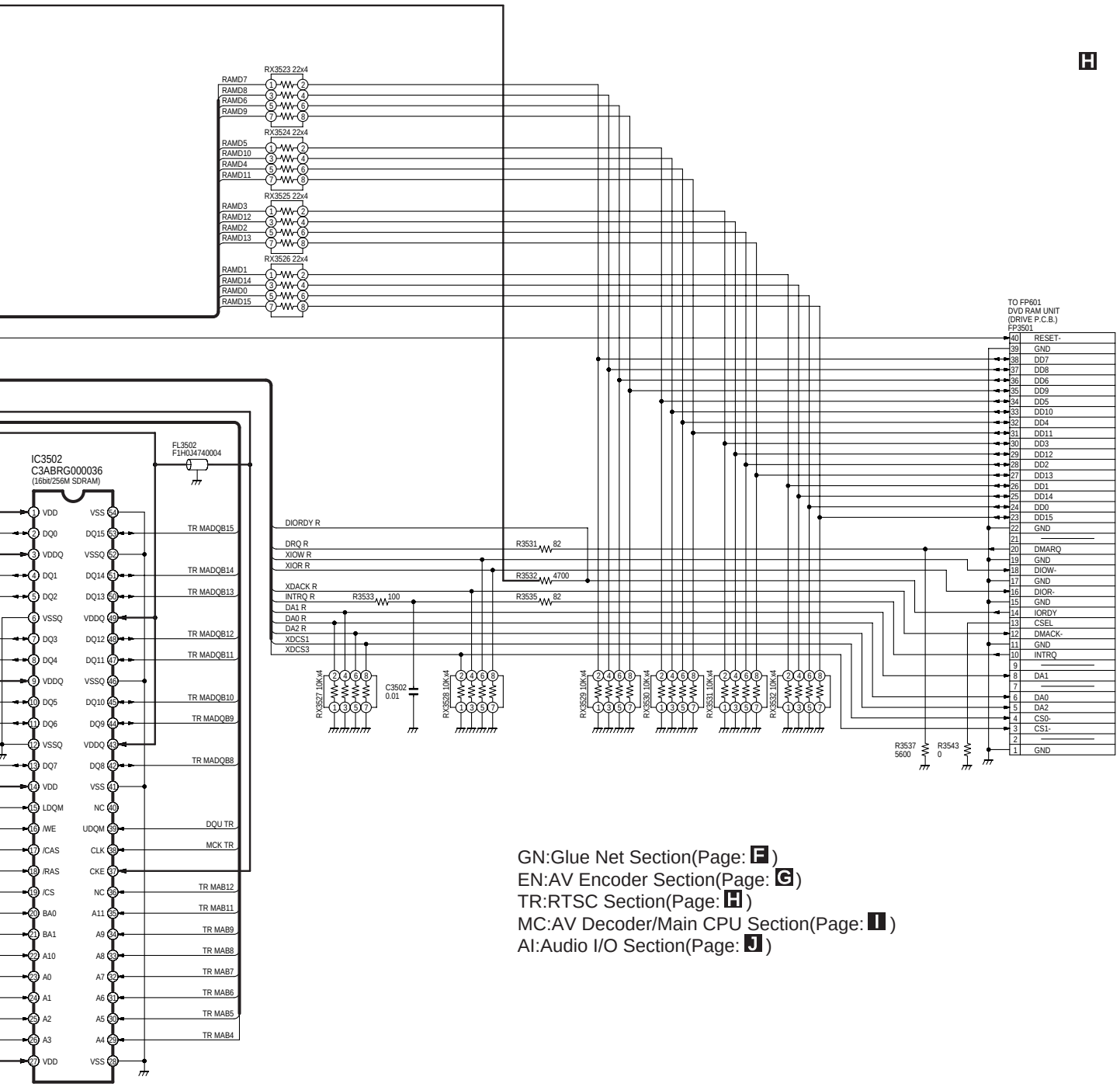


DMR-E85HEP Real Time Stream Control(RTSC) Section(Digital P.C.B.(3/5)) Schematic Diagram(TR)

7 8 9 10 11 12



DMR-E85HEP
Real Time Stream Control(RTSC) Section
(Digital P.C.B.(3/5))
Schematic Diagram(TR)



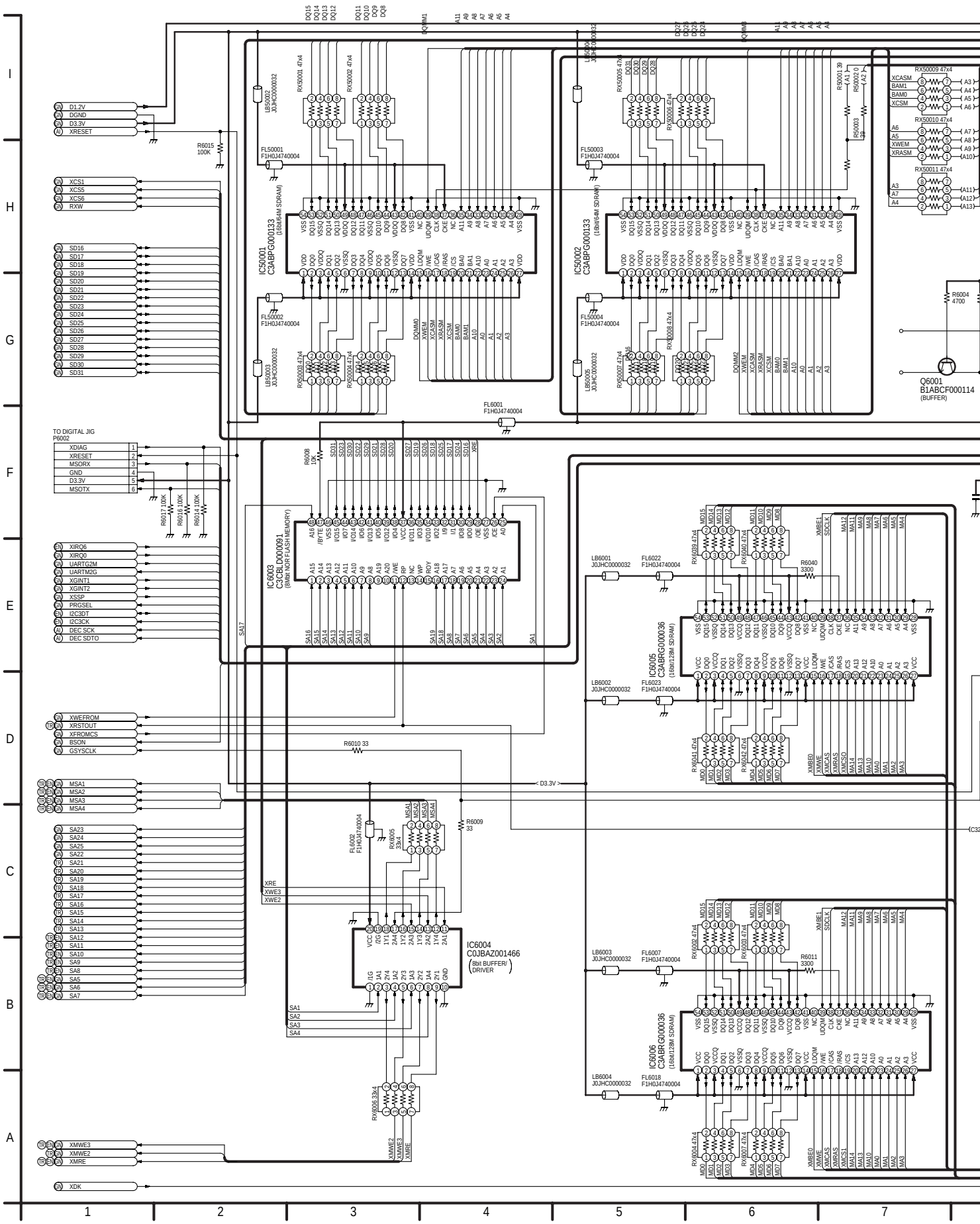
GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

DMR-E85HEP
Real Time Stream Control(RTSC) Section
(Digital P.C.B.(3/5))
Schematic Diagram(TR)

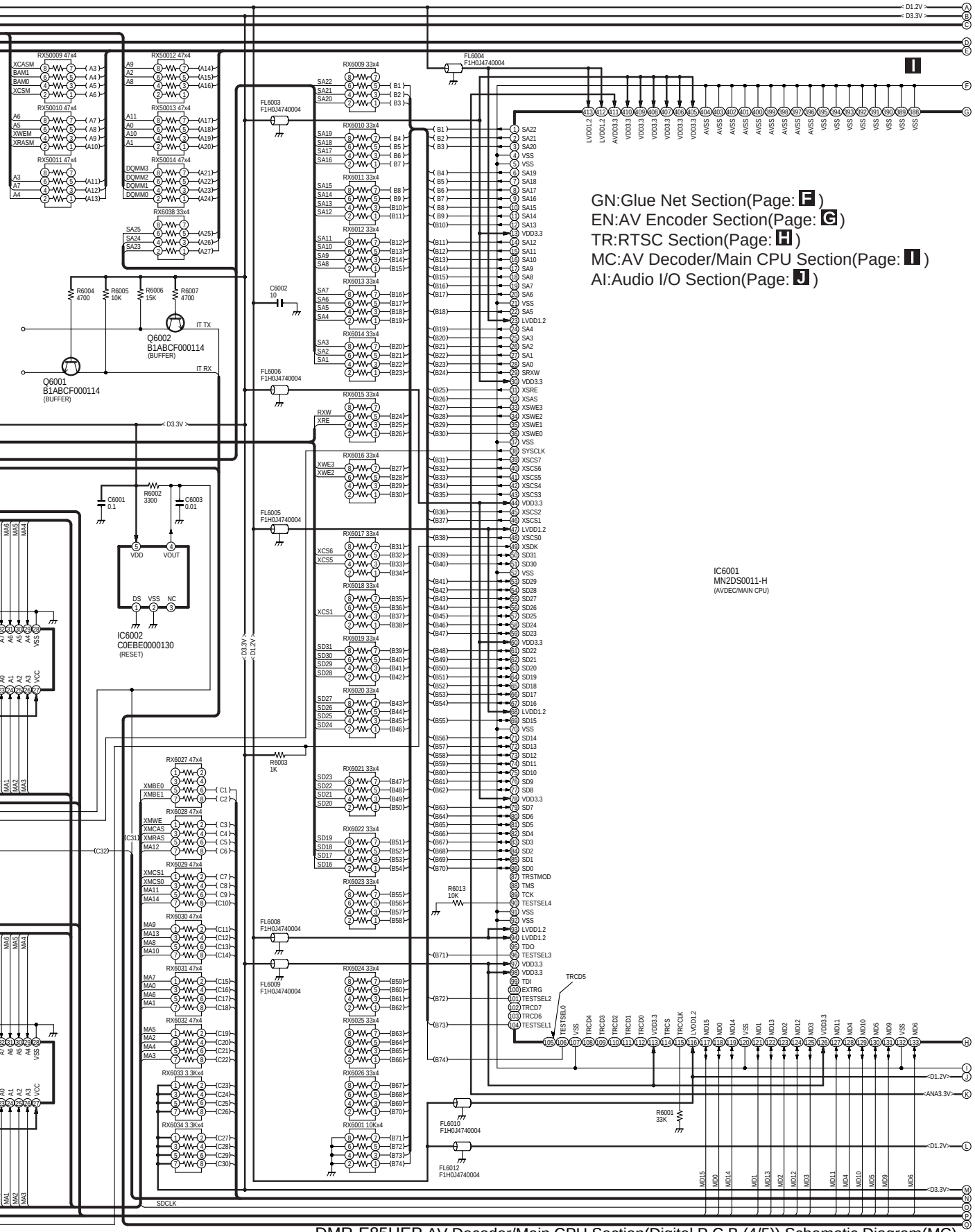
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

19 20 21 22 23 24 25

17.11. AV Decoder/Main CPU Section (Digital P.C.B. (4/5)) Schematic Diagram (MC)

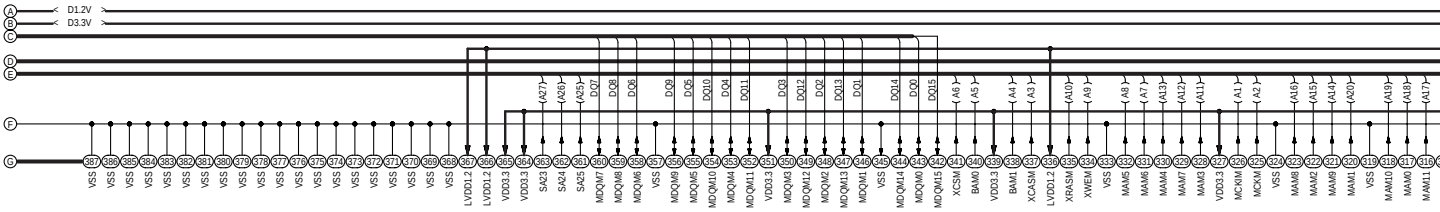


n (MC)



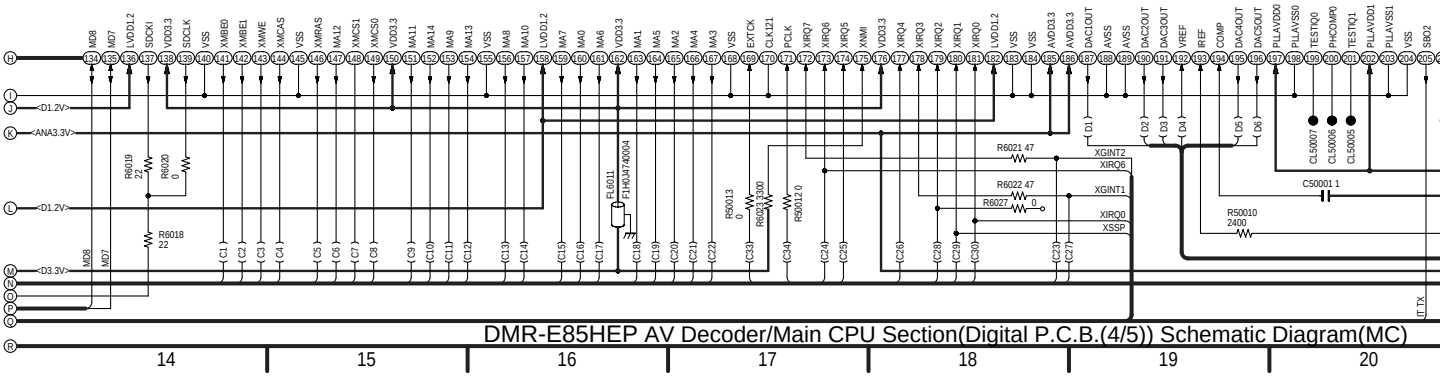
DMR-E85HEP AV Decoder/Main CPU Section(Digital P.C.B.(4/5)) Schematic Diagram(MC)

7 8 9 10 11 12 13

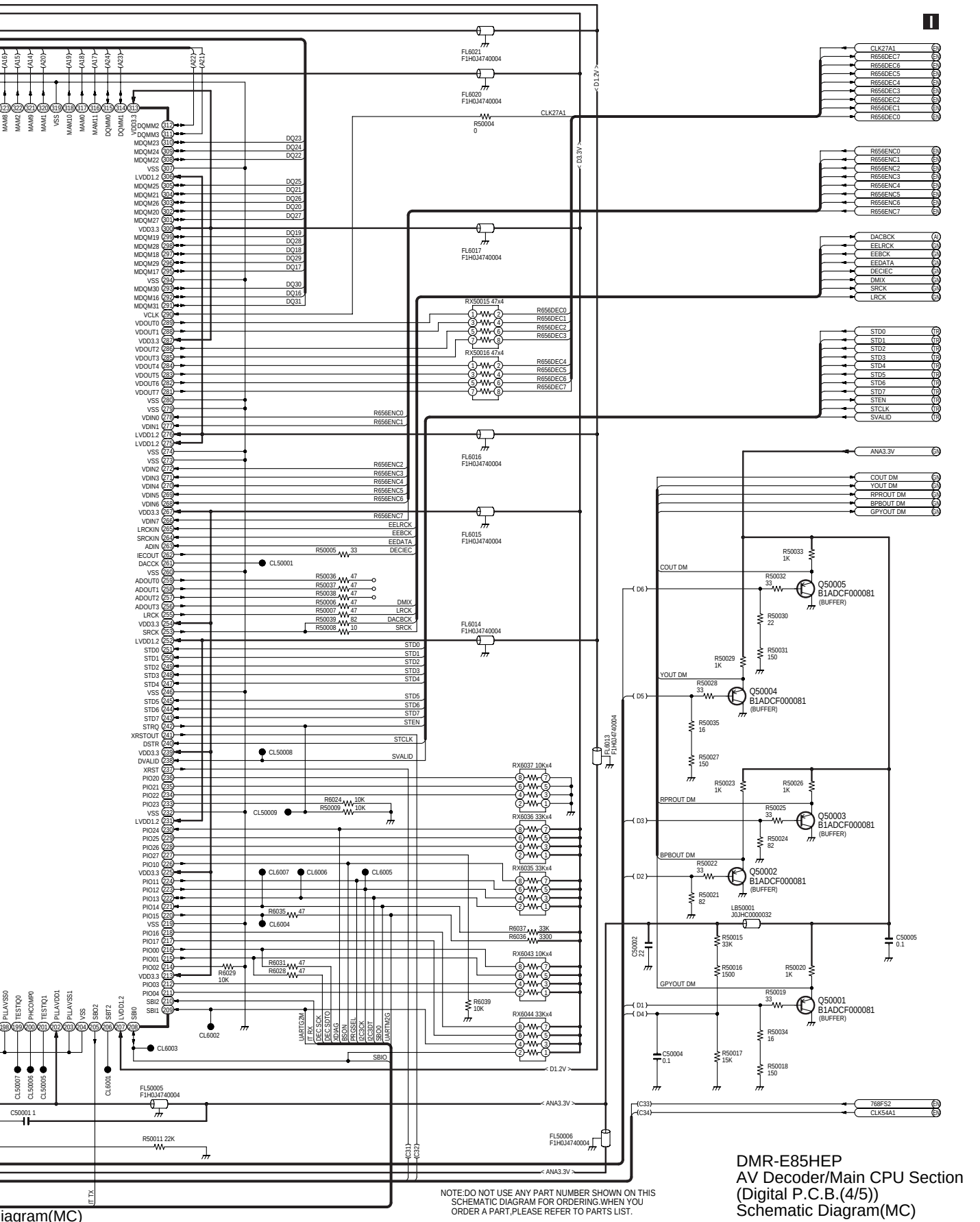


GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

IC6001
MN2DS0011-H
(AVDEC/MAIN CPU)



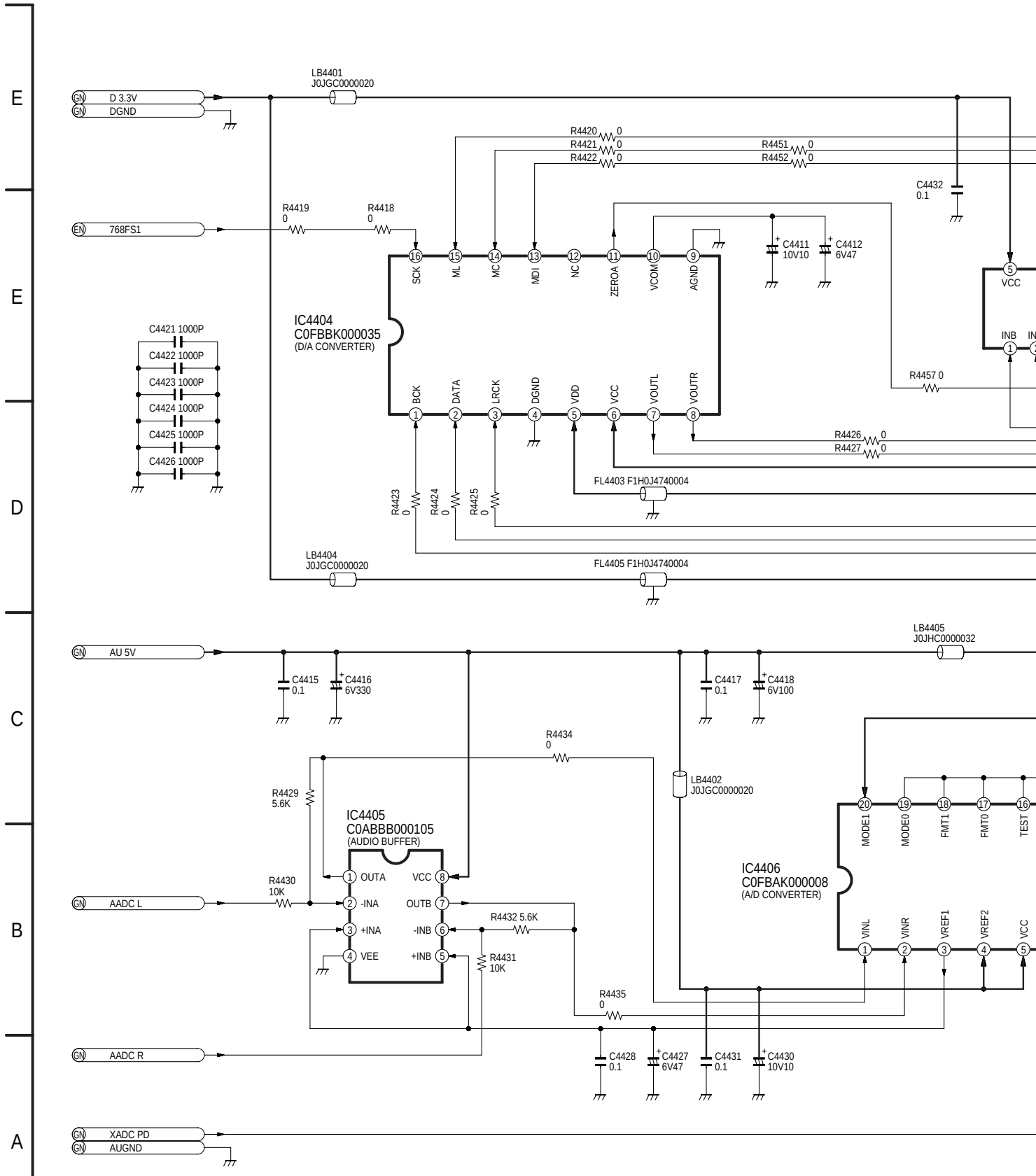
DMR-E85HEP AV Decoder/Main CPU Section(Digital P.C.B.(4/5)) Schematic Diagram(MC)



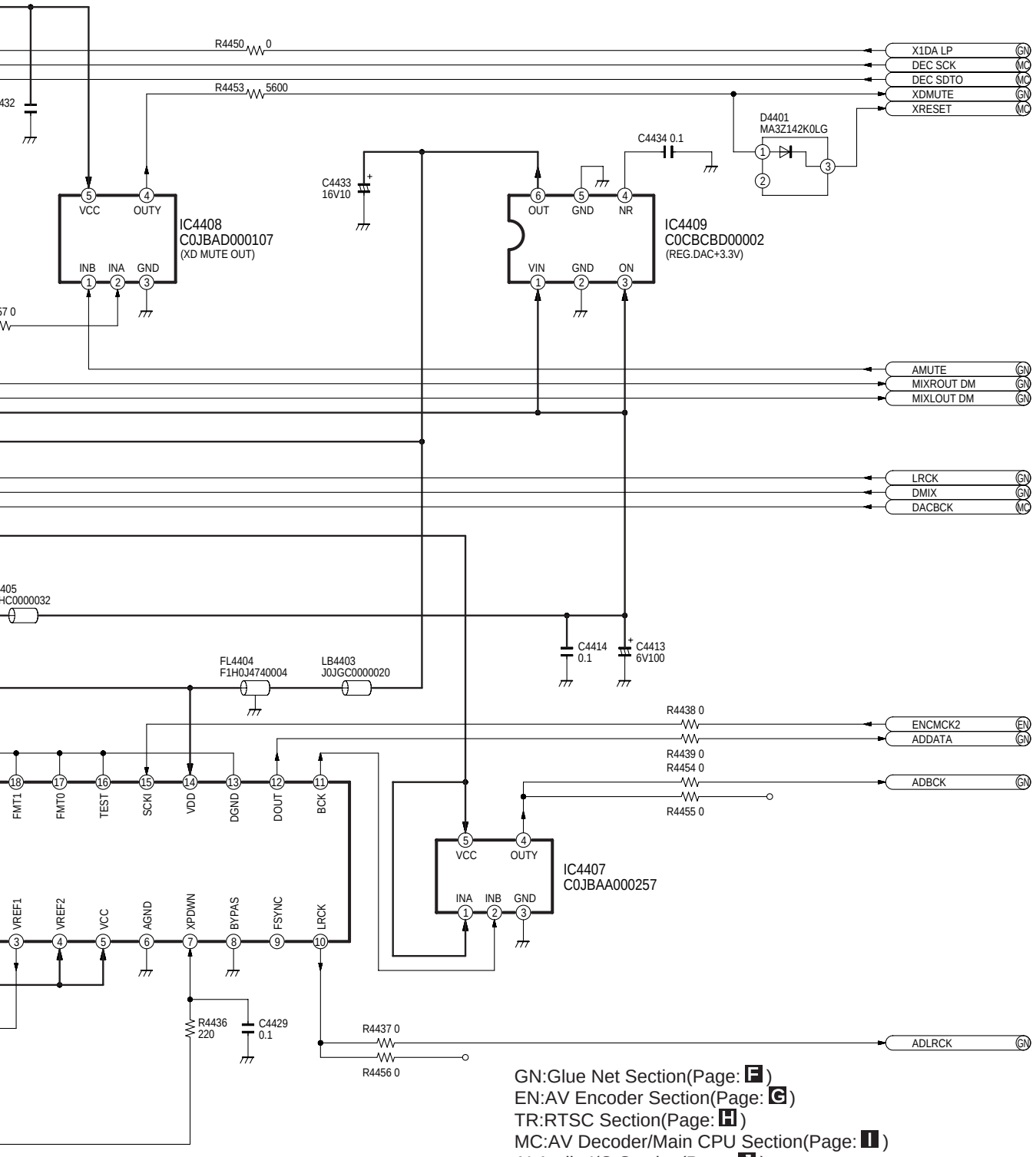
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP
AV Decoder/Main CPU Section
(Digital P.C.B.(4/5))
Schematic Diagram(MC)

17.12. Audio I/O Section (Digital P.C.B. (5/5)) Schematic Diagram (AI)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRA
IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT



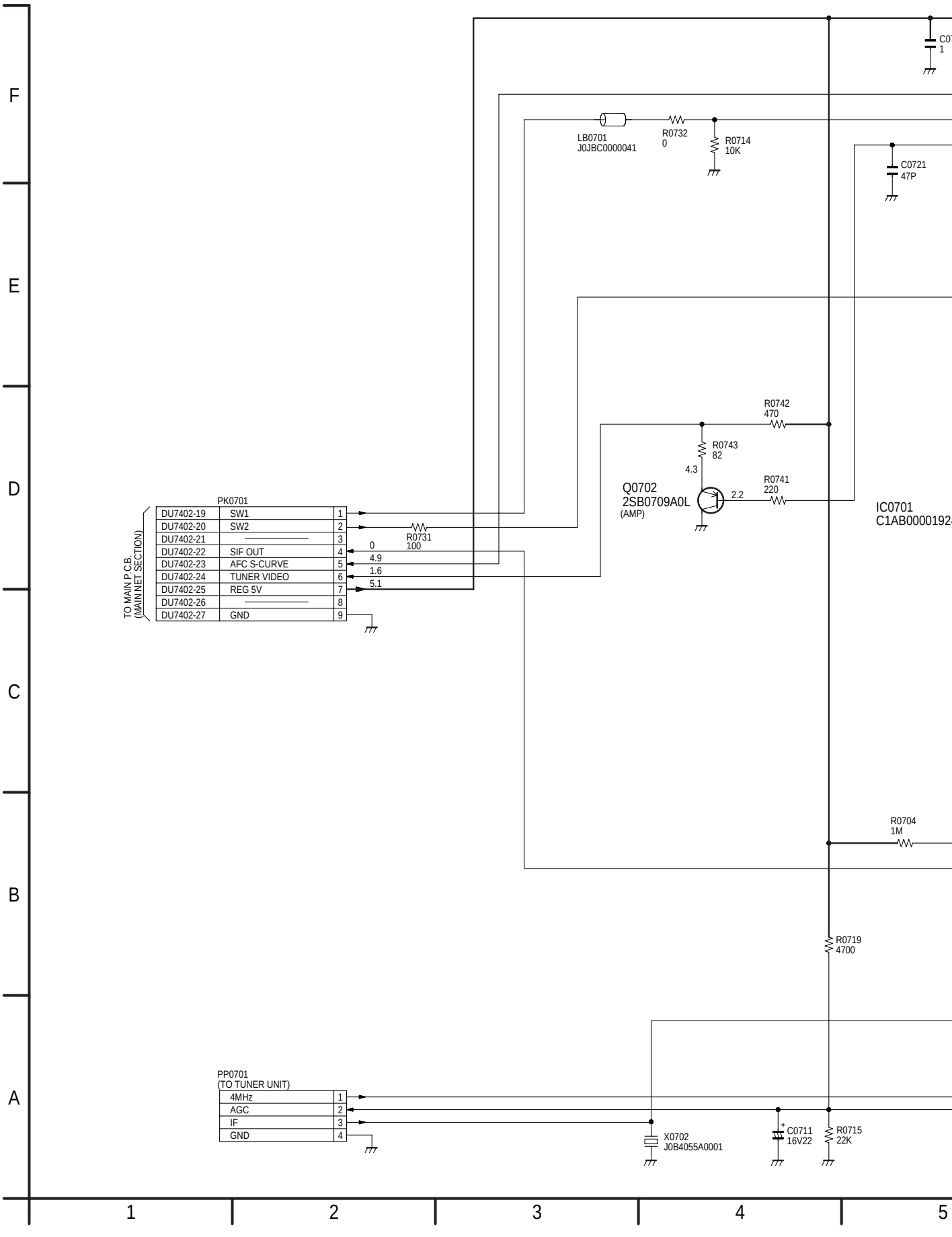
GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)

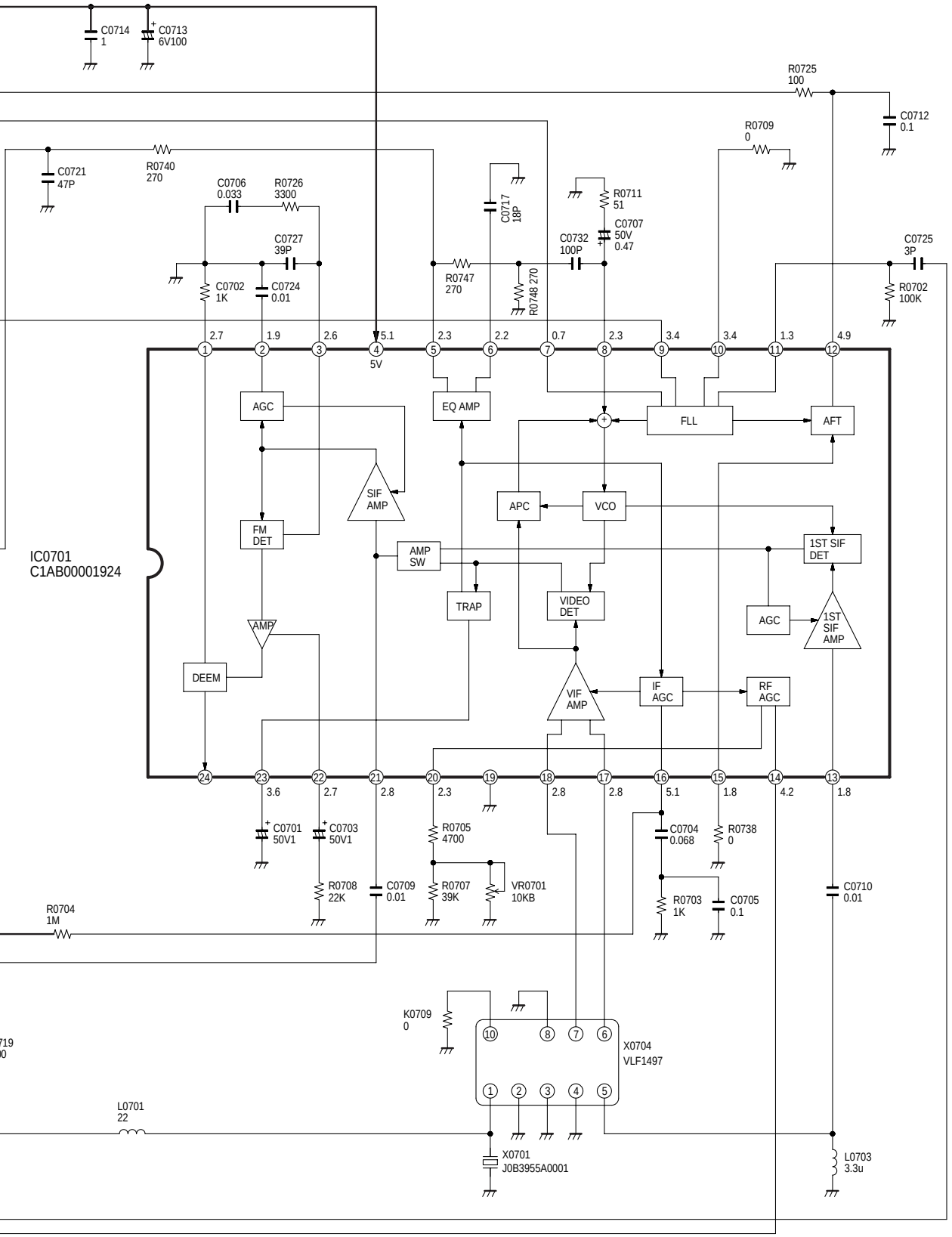
OWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN
GHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Audio I/O Section
(Digital P.C.B.(5/5))
Schematic Diagram(AI)

5	6	7	8	9

17.13. VIF Decoder Schematic Diagram





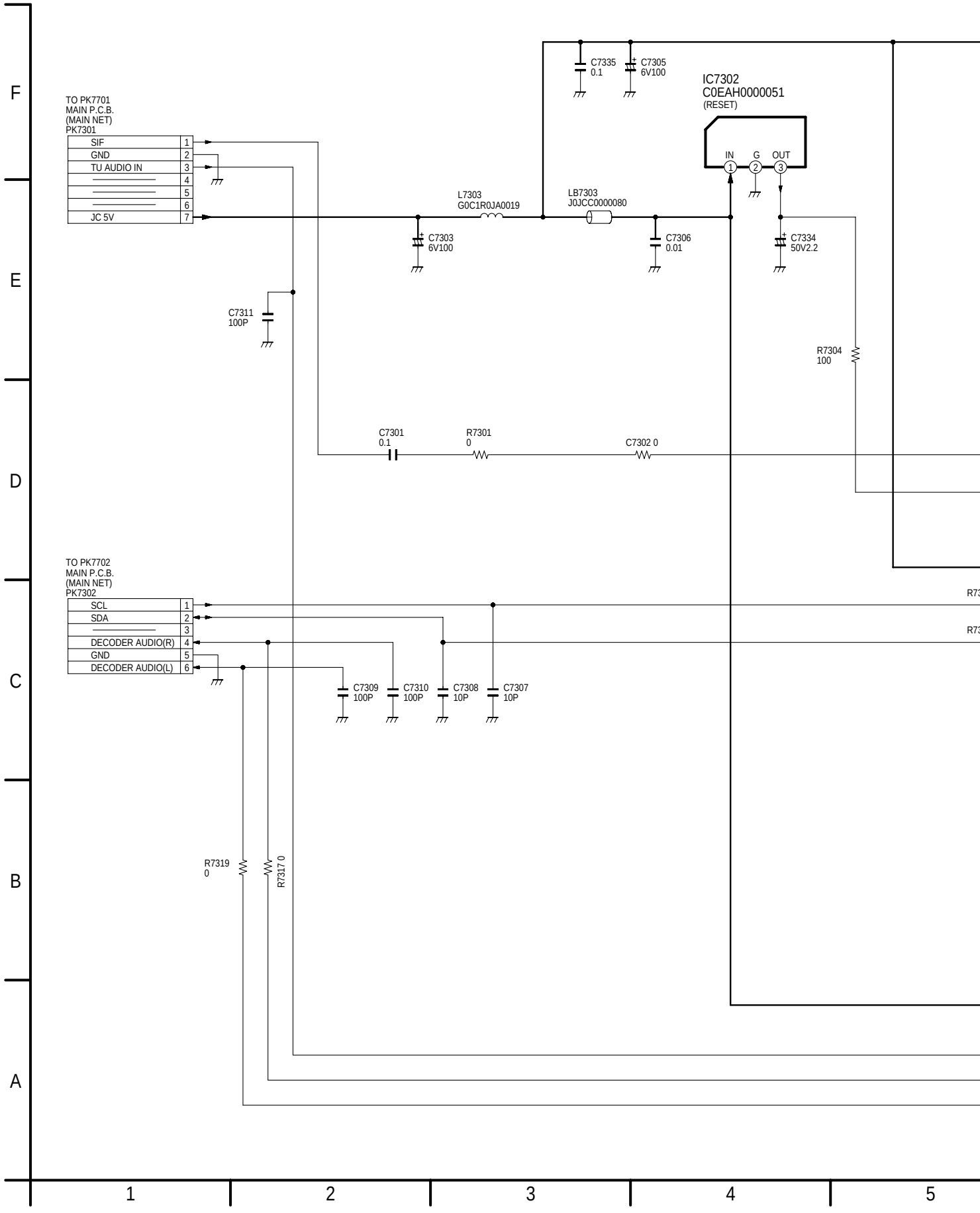
NOTE:THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

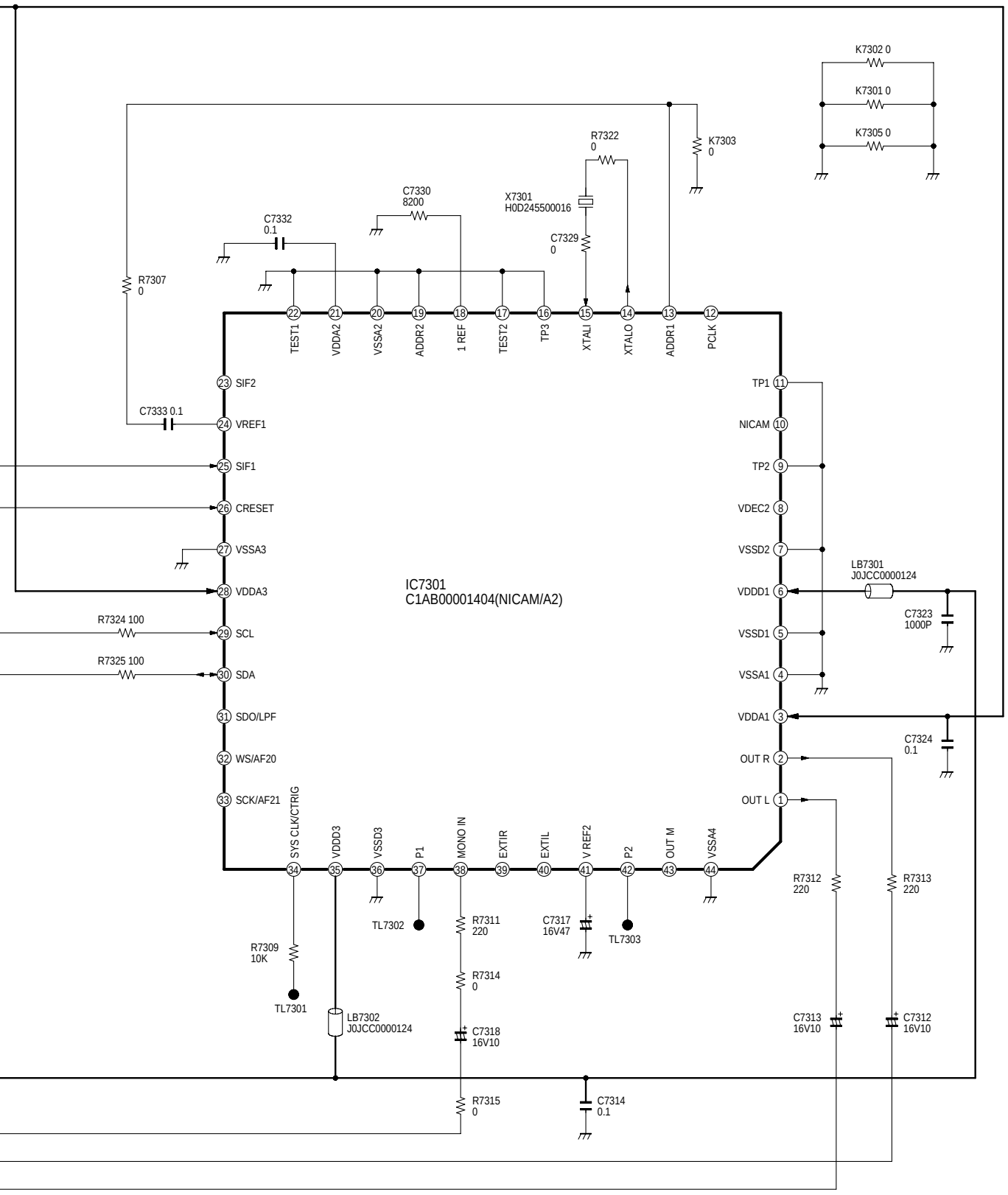
NOTE:DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP
VIF Decoder Schematic Diagram

5 | 6 | 7 | 8 | 9

17.14. Nicam Decoder Schematic Diagram



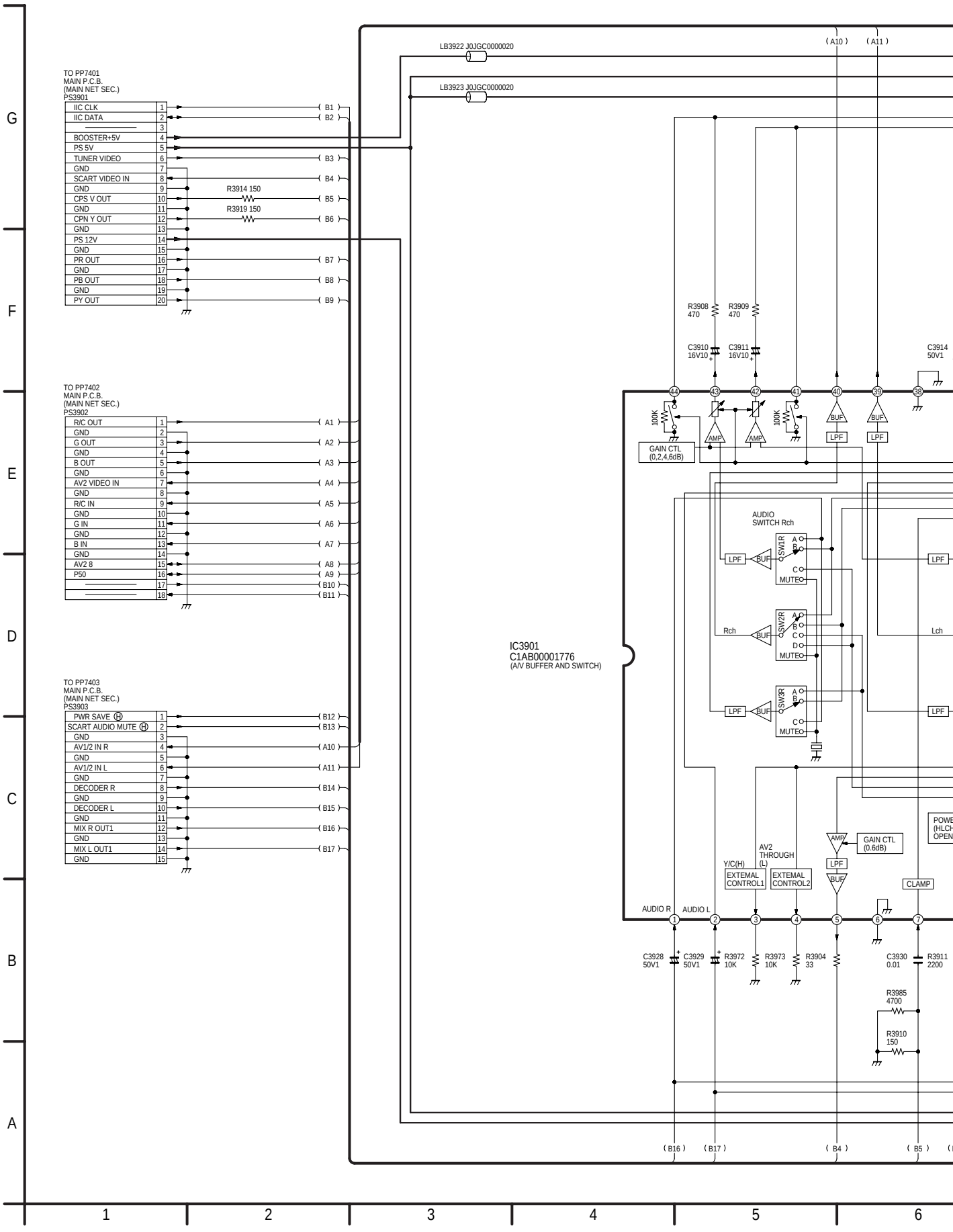


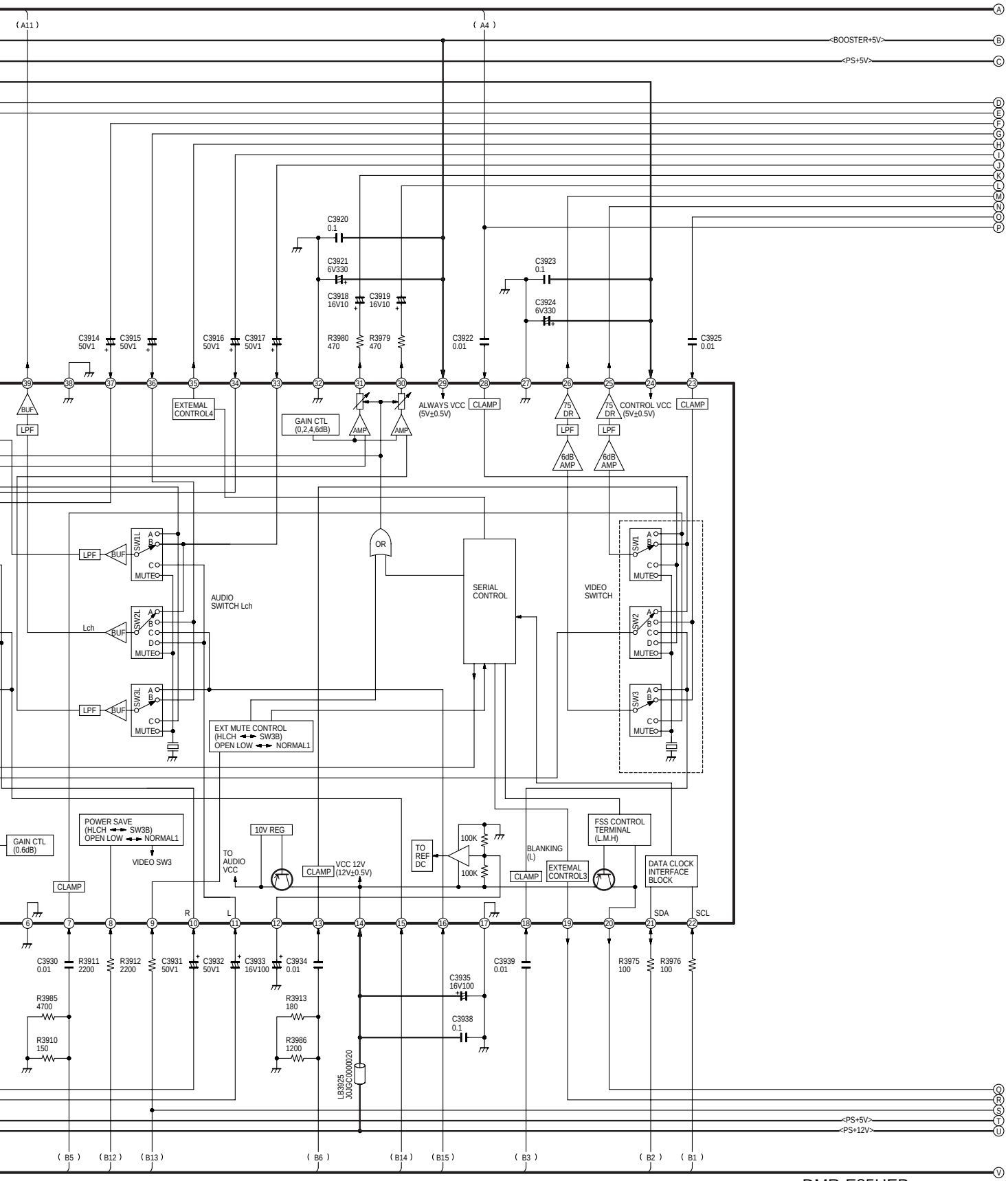
NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM
FOR ORDERING.WHEN YOU ORDER A PART,PLEASE REFER TO PARTS LIST.

DMR-E85HEP
Nicam Decoder Schematic Diagram

5 | 6 | 7 | 8

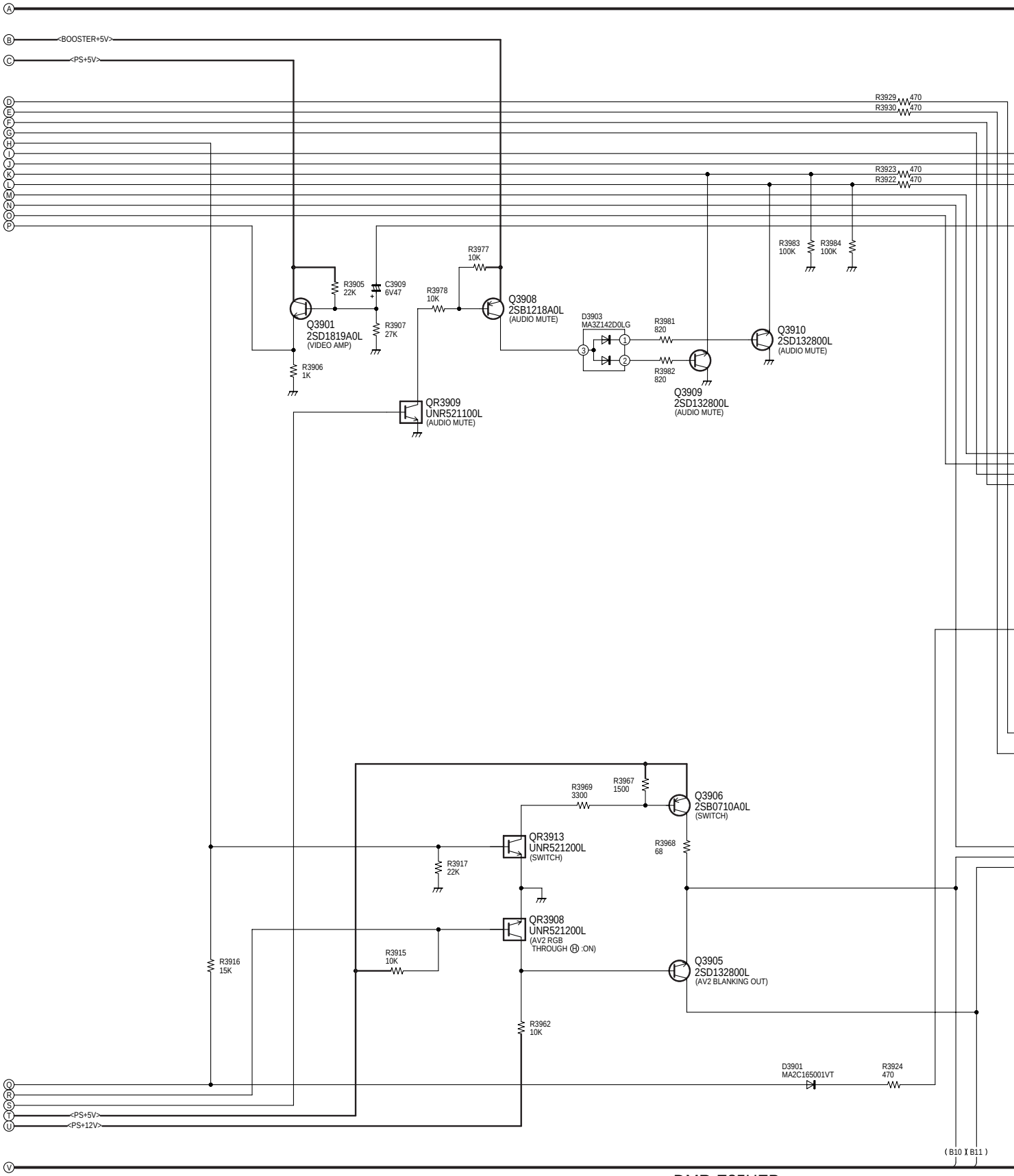
17.15. Scart Schematic Diagram





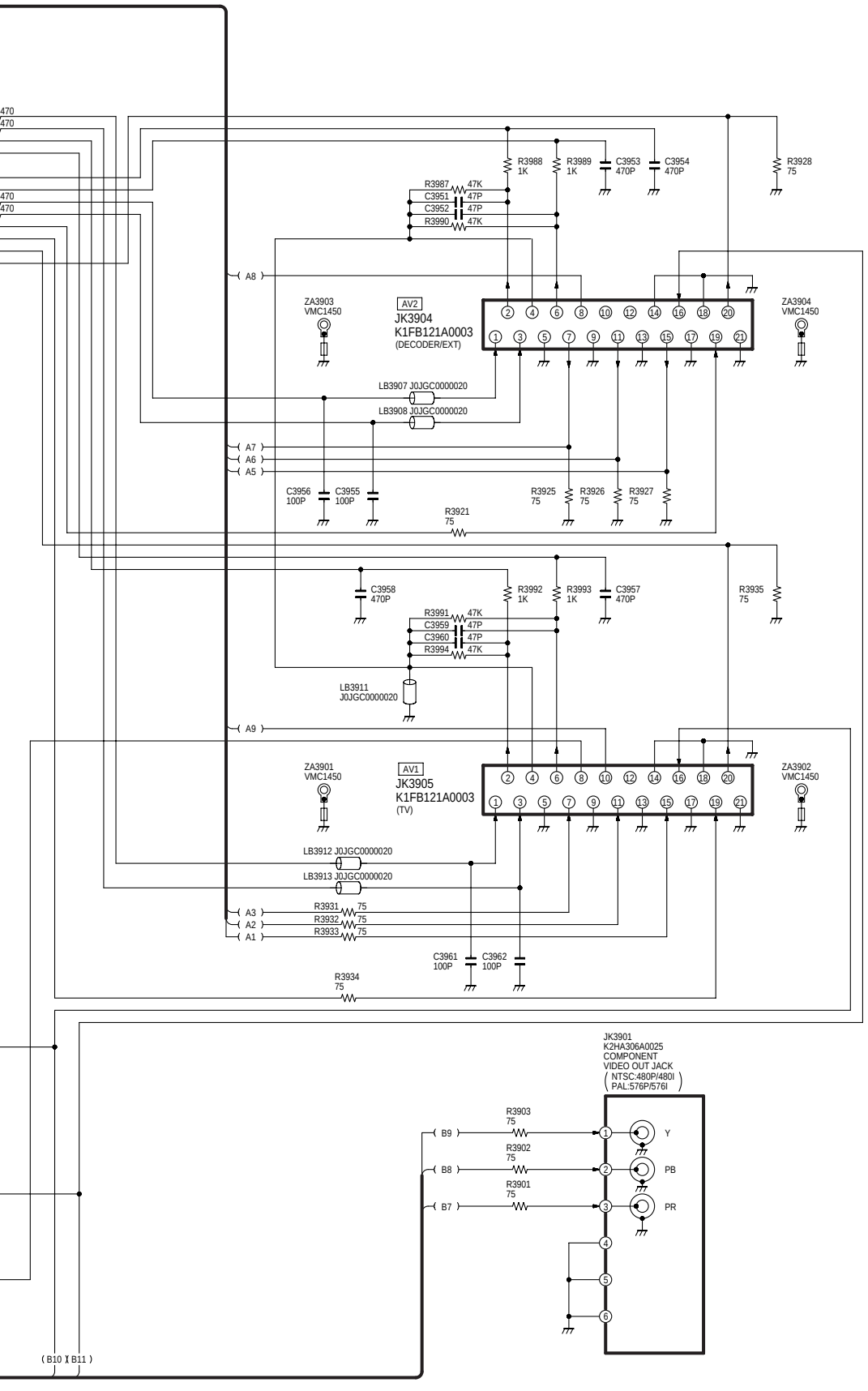
DMR-E85HEP
Scart Schematic Diagram

6 | 7 | 8 | 9 | 10 | 11



DMR-E85HEP
Scart Schematic Diagram

12 13 14 15 16 17



AV2

1	AUDIO OUT CH2(R)
2	AUDIO IN CH2(R)
3	AUDIO OUT CH1(L)
4	GND(A)
5	GND
6	AUDIO IN CH1(L)
7	BLUE
8	AV2 +12V
9	GND
10	-/CONTROL
11	GREEN
12	-/DATA
13	GND
14	GND
15	RED/C IN
16	BLANKING
17	GND
18	GND
19	VIDEO OUT
20	VIDEO IN/Y IN
21	GND

AV1

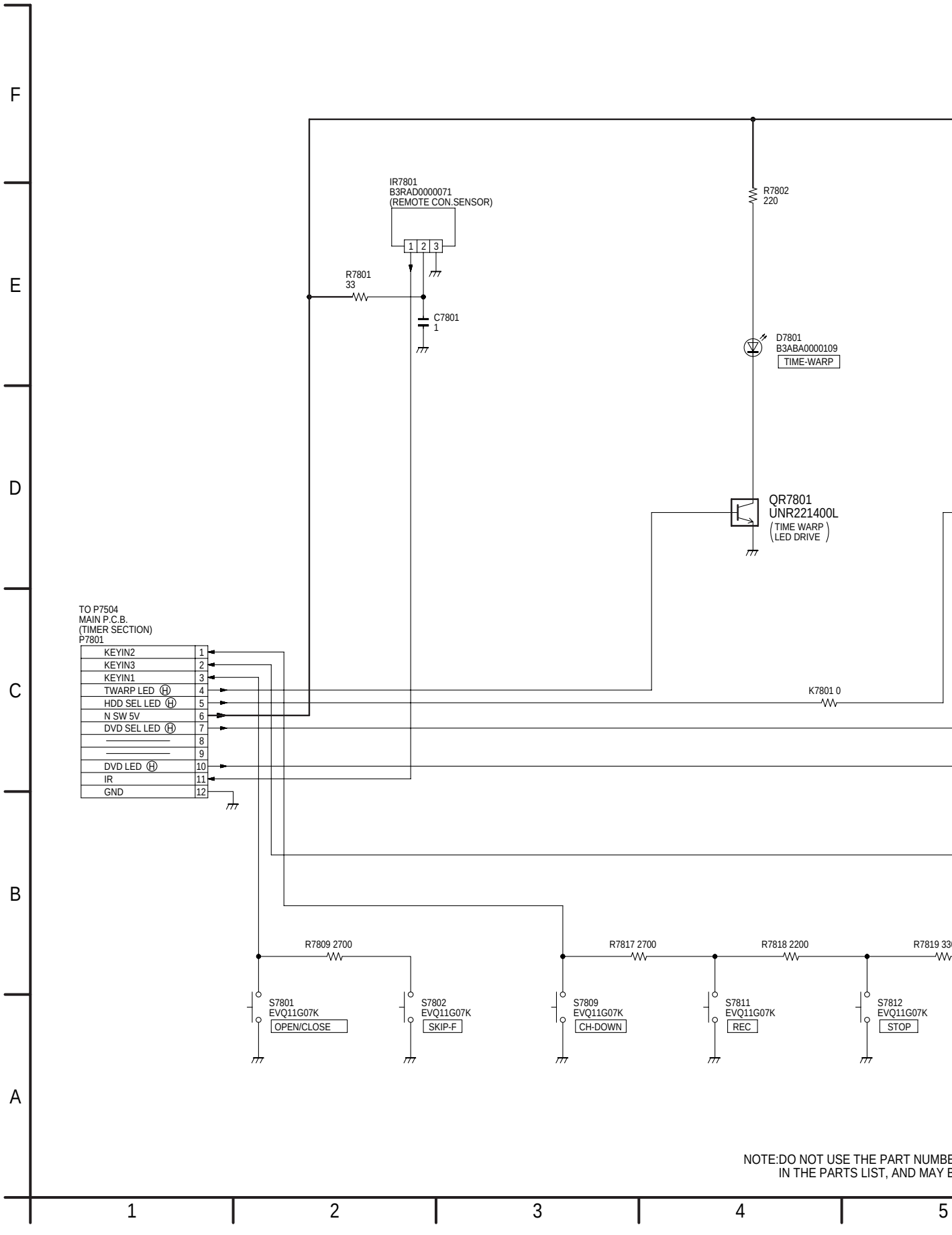
1	AUDIO OUT CH2(R)
2	AUDIO IN CH2(R)
3	AUDIO OUT CH1(L)
4	GND(A)
5	GND
6	AUDIO IN CH1(L)
7	BLUE
8	PB +12V
9	GND
10	-/CONTROL
11	GREEN
12	-/DATA
13	GND
14	GND
15	RED/C OUT
16	BLANKING
17	GND
18	GND
19	VIDEO OUT/Y OUT
20	VIDEO IN
21	GND

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

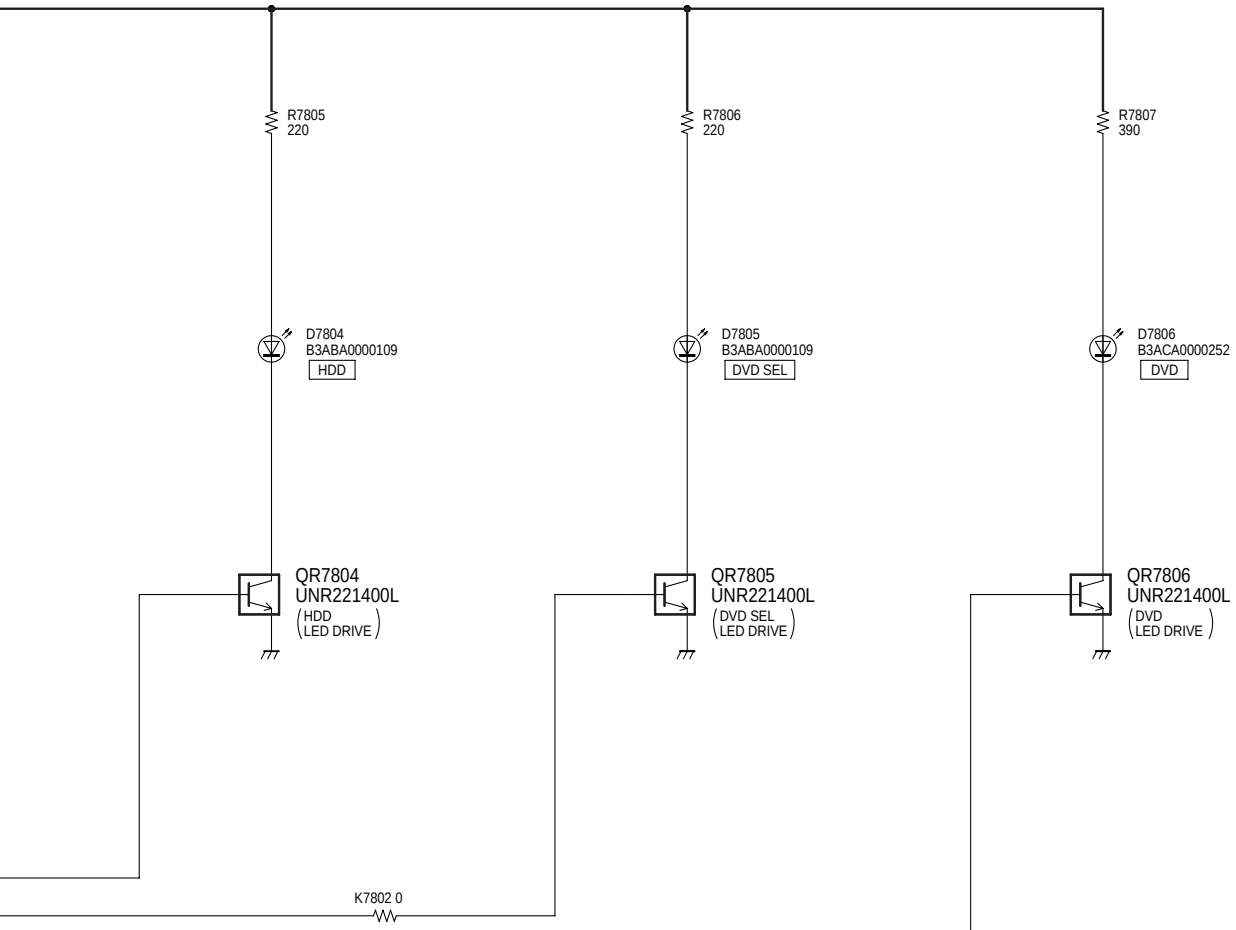
DMR-E85HEP
Scart Schematic Diagram

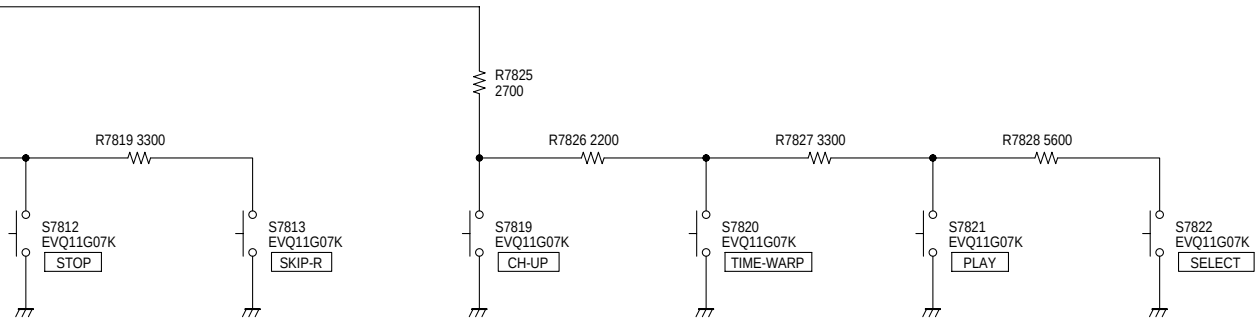
18 | 19 | 20 | 21 | 22

17.16. Front (R) Schematic Diagram



NOTE:DO NOT USE THE PART NUMBE
IN THE PARTS LIST, AND MAY B





THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN
S LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-E85HEP
Front(R) Schematic Diagram

5 | 6 | 7 | 8 | 9

IC Pin Terminal Chart (TC 1 - TC 8)

TC	IC3404 / AVENC		SIGNAL NAME	IC3402 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
1	ARDQ0	334	MADQB0	2	DQ0
	ARDQ1	335	MADQB1	3	DQ1
	ARDQ2	336	MADQB2	5	DQ2
	ARDQ3	2	MADQB3	6	DQ3
	ARDQ4	4	MADQB4	8	DQ4
	ARDQ5	5	MADQB5	9	DQ5
	ARDQ6	7	MADQB6	11	DQ6
	ARDQ7	9	MADQB7	12	DQ7
	ARDQ8	16	MADQB8	39	DQ8
	ARDQ9	17	MADQB9	40	DQ9
	ARDQ10	19	MADQB10	42	DQ10
	ARDQ11	20	MADQB11	43	DQ11
	ARDQ12	22	MADQB12	45	DQ12
	ARDQ13	23	MADQB13	46	DQ13
	ARDQ14	25	MADQB14	48	DQ14
	ARDQ15	26	MADQB15	49	DQ15
	ARA0	28	MAB0	21	A0
	ARA1	29	MAB1	22	A1
	ARA2	31	MAB2	23	A2
	ARA3	32	MAB3	24	A3
	ARA4	34	MAB4	27	A4
	ARA5	35	MAB5	28	A5
	ARA6	37	MAB6	29	A6
	ARA7	38	MAB7	30	A7
	ARA8	41	MAB8	31	A8
	ARA9	42	MAB9	32	A9
	ARA10	44	MAB10	20	A10
	ARA11	45	BAOS D	19	A11

TC	IC3404 / AV ENC		SIGNAL NAME	IC3408 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
2	MDQ0	88	MDQA0	2	DQ0
	MDQ1	89	MDQA1	4	DQ1
	MDQ2	91	MDQA2	5	DQ2
	MDQ3	92	MDQA3	7	DQ3
	MDQ4	93	MDQA4	8	DQ4
	MDQ5	95	MDQA5	10	DQ5
	MDQ6	96	MDQA6	11	DQ6
	MDQ7	97	MDQA7	13	DQ7
	MDQ8	99	MDQA8	74	DQ8
	MDQ9	100	MDQA9	76	DQ9
	MDQ10	101	MDQA10	77	DQ10
	MDQ11	103	MDQA11	79	DQ11
	MDQ12	104	MDQA12	80	DQ12
	MDQ13	105	MDQA13	82	DQ13
	MDQ14	108	MDQA14	83	DQ14
	MDQ15	109	MDQA15	85	DQ15
	MDQ16	115	MDQA16	31	DQ16
	MDQ17	116	MDQA17	33	DQ17
	MDQ18	118	MDQA18	34	DQ18
	MDQ19	119	MDQA19	36	DQ19
	MDQ20	120	MDQA20	37	DQ20
	MDQ21	122	MDQA21	39	DQ21
	MDQ22	123	MDQA22	40	DQ22
	MDQ23	124	MDQA23	42	DQ23
	MDQ24	127	MDQA24	45	DQ24
	MDQ25	128	MDQA25	47	DQ25
	MDQ26	129	MDQA26	48	DQ26
	MDQ27	131	MDQA27	50	DQ27
	MDQ28	132	MDQA28	51	DQ28
	MDQ29	133	MDQA29	53	DQ29
	MDQ30	135	MDQA30	54	DQ30
	MDQ31	136	MDQA31	56	DQ31
	MA0	147	MAA0	25	A0
	MA1	148	MAA1	26	A1
	MA2	149	MAA2	27	A2
	MA3	152	MAA3	60	A3
	MA4	153	MAA4	61	A4
	MA5	154	MAA5	62	A5
	MA6	156	MAA6	63	A6
	MA7	157	MAA7	64	A7
	MA8	158	MAA8	65	A8
	MA9	160	MAA9	66	A9
	MA10	161	MAA10	24	A10

TC	IC3501 / RTSC		SIGNAL NAME	FP3501 (TO DVD RAM&HDD	
	Port Name	Pin No		Pin No	Port Name
3	IHDD0	251	RAMD0	24	DD0
	IHDD1	250	RAMD1	26	DD1
	IHDD2	249	RAMD2	28	DD2
	IHDD3	248	RAMD3	30	DD3
	IHDD4	246	RAMD4	32	DD4
	IHDD5	245	RAMD5	34	DD5
	IHDD6	244	RAMD6	36	DD6
	IHDD7	243	RAMD7	38	DD7
	IHDD8	239	RAMD8	37	DD8
	IHDD9	238	RAMD9	35	DD9
	IHDD10	237	RAMD10	33	DD10
	IHDD11	236	RAMD11	31	DD11
	IHDD12	235	RAMD12	29	DD12
	IHDD13	233	RAMD13	27	DD13
	IHDD14	232	RAMD14	25	DD14
	IHDD15	231	RAMD15	23	DD15

TC	IC3404 / AVENC		SIGNAL NAME	IC6001 / AV DEC&MAIN CPU	
	Port Name	Pin No		Pin No	Port Name
4	R656OUT0	296	R656ENC0	278	VDIN0
	R656OUT1	297	R656ENC1	277	VDIN1
	R656OUT2	298	R656ENC2	272	VDIN2
	R656OUT3	299	R656ENC3	271	VDIN3
	R656OUT4	301	R656ENC4	270	VDIN4
	R656OUT5	302	R656ENC5	269	VDIN5
	R656OUT6	303	R656ENC6	268	VDIN6
	R656OUT7	304	R656ENC7	266	VDIN7

TC	IC6001/AV DEC&MAIN CPU		SIGNAL NAME	IC3404 / AVENC	
	Port Name	Pin No		Pin No	Port Name
5	VDOUT0	289	R656DEC0	283	R656IN0
	VDOUT1	288	R656DEC1	284	R656IN1
	VDOUT2	286	R656DEC2	285	R656IN2
	VDOUT3	285	R656DEC3	286	R656IN3
	VDOUT4	284	R656DEC4	288	R656IN4
	VDOUT5	283	R656DEC5	289	R656IN5
	VDOUT6	282	R656DEC6	290	R656IN6
	VDOUT7	281	R656DEC7	291	R656IN7

TC	IC3501 / RTSC		SIGNAL NAME	IC6001/AV DEC&MAIN CPU	
	Port Name	Pin No		Pin No	Port Name
6	B3DATA0	46	STD0	251	STD0
	B3DATA1	47	STD1	250	STD1
	B3DATA2	48	STD2	249	STD2
	B3DATA3	49	STD3	248	STD3
	B3DATA4	53	STD4	247	STD4
	B3DATA5	54	STD5	245	STD5
	B3DATA6	55	STD6	244	STD6
	B3DATA7	56	STD7	243	STD7

TC	IC3404 / AVENC		SIGNAL NAME	IC3501 / RTSC	
	Port Name	Pin No		Pin No	Port Name
7	CD0	229	ED0	27	B2DATA0
	CD1	230	ED1	28	B2DATA1
	CD2	231	ED2	30	B2DATA2
	CD3	233	ED3	31	B2DATA3
	CD4	234	ED4	33	B2DATA4
	CD5	235	ED5	34	B2DATA5
	CD6	238	ED6	36	B2DATA6
	CD7	239	ED7	37	B2DATA7

TC	IC6701 / GLUE		SIGNAL NAME	IC6703 / DATA STRAGE	
	Port Name	Pin No		Pin No	Port Name
8	ECCD0	67	DE0	29	D0
	ECCD1	70	DE1	30	D1
	ECCD2	69	DE2	31	D2
	ECCD3	68	DE3	32	D3
	ECCD4	71	DE4	41	D4
	ECCD5	74	DE5	42	D5
	ECCD6	73	DE6	43	D6
	ECCD7	72	DE7	44	D7

IC Pin Terminal Chart (TC9 - TC12)

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC50001 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
9	MDQM0	343	DQ0	2	DQ0
	MDQM1	346	DQ1	4	DQ1
	MDQM2	348	DQ2	5	DQ2
	MDQM3	350	DQ3	7	DQ3
	MDQM4	353	DQ4	8	DQ4
	MDQM5	355	DQ5	10	DQ5
	MDQM6	358	DQ6	11	DQ6
	MDQM7	360	DQ7	13	DQ7
	MDQM8	359	DQ8	42	DQ8
	MDQM9	356	DQ9	44	DQ9
	MDQM10	354	DQ10	45	DQ10
	MDQM11	352	DQ11	47	DQ11
	MDQM12	349	DQ12	48	DQ12
	MDQM13	347	DQ13	50	DQ13
	MDQM14	344	DQ14	51	DQ14
	MDQM15	342	DQ15	53	DQ15
	MAM0	317	A0	23	A0
	MAM1	320	A1	24	A1
	MAM2	322	A2	25	A2
	MAM3	328	A3	26	A3
	MAM4	330	A4	29	A4
	MAM5	332	A5	30	A5
	MAM6	331	A6	31	A6
	MAM7	329	A7	32	A7
	MAM8	323	A8	33	A8
	MAM9	321	A9	34	A9
	MAM10	318	A10	22	A10
	MAM11	316	A11	35	A11

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC50002 / SDRAM	
	Port Name	Pin No		Pin No	Port Name
10	MDQM16	292	DQ16	2	DQ0
	MDQM17	295	DQ17	4	DQ1
	MDQM18	297	DQ18	5	DQ2
	MDQM19	299	DQ19	7	DQ3
	MDQM20	302	DQ20	8	DQ4
	MDQM21	304	DQ21	10	DQ5
	MDQM22	308	DQ22	11	DQ6
	MDQM23	310	DQ23	13	DQ7
	MDQM24	309	DQ24	42	DQ8
	MDQM25	305	DQ25	44	DQ9
	MDQM26	303	DQ26	45	DQ10
	MDQM27	301	DQ27	47	DQ11
	MDQM28	298	DQ28	48	DQ12
	MDQM29	296	DQ29	50	DQ13
	MDQM30	293	DQ30	51	DQ14
	MDQM31	291	DQ31	53	DQ15
	MAM0	317	A0	23	A0
	MAM1	320	A1	24	A1
	MAM2	322	A2	25	A2
	MAM3	328	A3	26	A3
	MAM4	330	A4	29	A4
	MAM5	332	A5	30	A5
	MAM6	331	A6	31	A6
	MAM7	329	A7	32	A7
	MAM8	323	A8	33	A8
	MAM9	321	A9	34	A9
	MAM10	318	A10	22	A10
	MAM11	316	A11	35	A11

TC	IC6001 / AV DEC&MAIN CPU		SIGNAL NAME	IC6005,IC6006 / W-MEMORY	
	Port Name	Pin No		Pin No	Port Name
11	MD0	118	MD0	2	DQ0
	MD1	121	MD1	4	DQ1
	MD2	123	MD2	5	DQ2
	MD3	125	MD3	7	DQ3
	MD4	128	MD4	8	DQ4
	MD5	130	MD5	10	DQ5
	MD6	133	MD6	11	DQ6
	MD7	135	MD7	13	DQ7
	MD8	134	MD8	42	DQ8
	MD9	131	MD9	44	DQ9
	MD10	129	MD10	45	DQ10
	MD11	127	MD11	47	DQ11
	MD12	124	MD12	48	DQ12
	MD13	122	MD13	50	DQ13
	MD14	119	MD14	51	DQ14
	MD15	117	MD15	53	DQ15
	MA0	160	MA0	23	A0
	MA1	163	MA1	24	A1
	MA2	165	MA2	25	A2
	MA3	167	MA3	26	A3
	MA4	166	MA4	29	A4
	MA5	164	MA5	30	A5
	MA6	161	MA6	31	A6
	MA7	159	MA7	32	A7
	MA8	156	MA8	33	A8
	MA9	153	MA9	34	A9
	MA10	157	MA10	22	A10
	MA11	151	MA11	35	A11
	MA12	147	MA12	36	NC
	MA13	154	MA13	21	A12
	MA14	152	MA14	20	A13

TC	IC3501 / RTSC		SIGNAL NAME	IC3502/ SDRAM	
	Port Name	Pin No		Pin No	Port Name
12	MDQ0	281	TR MADQB0	2	DQ0
	MDQ1	280	TR MADQB1	4	DQ1
	MDQ2	278	TR MADQB2	5	DQ2
	MDQ3	277	TR MADQB3	7	DQ3
	MDQ4	276	TR MADQB4	8	DQ4
	MDQ5	274	TR MADQB5	10	DQ5
	MDQ6	273	TR MADQB6	11	DQ6
	MDQ7	272	TR MADQB7	13	DQ7
	MDQ8	270	TR MADQB8	42	DQ8
	MDQ9	269	TR MADQB9	44	DQ9
	MDQ10	268	TR MADQB10	45	DQ10
	MDQ11	266	TR MADQB11	47	DQ11
	MDQ12	265	TR MADQB12	48	DQ12
	MDQ13	264	TR MADQB13	50	DQ13
	MDQ14	263	TR MADQB14	51	DQ14
	MDQ15	262	TR MADQB15	53	DQ15
	MADR0	10	TR MAB0	23	A0
	MADR1	9	TR MAB1	24	A1
	MADR2	8	TR MAB2	25	A2
	MADR3	6	TR MAB3	26	A3
	MADR4	5	TR MAB4	29	A4
	MADR5	4	TR MAB5	30	A5
	MADR6	3	TR MAB6	31	A6
	MADR7	2	TR MAB7	32	A7
	MADR8	302	TR MAB8	33	A8
	MADR9	300	TR MAB9	34	A9
	MADR10	299	TR MAB10	22	A10
	MADR11	297	TR MAB11	35	A11
	MADR12	293	TR MAB12	36	NC

SA0 - SA25 ADDRESS BUS LINE (TC13, TC14-1, TC15-1, TC17, TC18-1, TC20)

TC	13		14-1		15-1		17		18-1		20	
SIGNAL NAME	IC3404 / AVENC		IC6701 / GLUE		IC6001 / AVDEC&MAIN CPU		IC6004 / BUFFER		IC6003 / LOADER		IC3501 / RTSC	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SA0	-	-	-	-	28	SA0	-	-	-	-	-	-
SA1	-	-	-	-	27	SA1	2	1A1	25	A0	-	-
SA2	-	-	-	-	26	SA2	4	1A2	24	A1	-	-
SA3	-	-	-	-	25	SA3	6	1A3	23	A2	-	-
SA4	-	-	-	-	24	SA4	8	1A4	22	A3	-	-
SA5	186	HA4	163	ADRL5	22	SA5	-	-	21	A4	75	HADR5
SA6	187	HA5	170	ADRL6	20	SA6	-	-	20	A5	76	HADR6
SA7	188	HA6	168	ADRL7	19	SA7	-	-	19	A6	77	HADR7
SA8	189	HA7	-	-	18	SA8	-	-	18	A7	78	HADR8
SA9	191	HA8	-	-	17	SA9	-	-	8	A8	79	HADR9
SA10	192	HA9	-	-	16	SA10	-	-	7	A9	80	HADR10
SA11	194	HA10	-	-	15	SA11	-	-	6	A10	81	HADR11
SA12	195	HA11	-	-	14	SA12	-	-	5	A11	82	HADR12
SA13	-	-	-	-	12	SA13	-	-	4	A12	85	HADR13
SA14	-	-	-	-	11	SA14	-	-	3	A13	86	HADR14
SA15	-	-	-	-	10	SA15	-	-	2	A14	87	HADR15
SA16	-	-	-	-	9	SA16	-	-	1	A15	89	HADR16
SA17	-	-	-	-	8	SA17	-	-	48	A16	90	HADR17
SA18	-	-	-	-	7	SA18	-	-	17	A17	92	HADR18
SA19	-	-	-	-	6	SA19	-	-	16	A18	93	HADR19
SA20	-	-	-	-	3	SA20	-	-	-	-	94	HADR20
SA21	-	-	-	-	2	SA21	-	-	-	-	95	HADR21
SA22	-	-	174	ADR22	1	SA22	-	-	-	-	-	-
SA23	-	-	171	ADRH0	363	SA23	-	-	-	-	-	-
SA24	-	-	172	ADRH1	362	SA24	-	-	-	-	-	-
SA25	-	-	173	ADRH2	361	SA25	-	-	-	-	-	-

SD16 - SD31 DATA BUS LINE (TC14-2, TC15-2, TC18-2)

TC	14-2		15-2		18-2	
SIGNAL NAME	IC6701 / GLUE		IC6001 / AVDEC&MAIN CPU		IC6003 / LOADER	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
SD16	201	LDTI0	67	SD16	29	I/O0
SD17	200	LDTI1	66	SD17	31	I/O1
SD18	199	LDTI2	65	SD18	33	I/O2
SD19	202	LDTI3	64	SD19	35	I/O3
SD20	197	LDTI4	63	SD20	38	I/O4
SD21	196	LDTI5	62	SD21	40	I/O5
SD22	198	LDTI6	61	SD22	42	I/O6
SD23	195	LDTI7	59	SD23	44	I/O7
SD24	194	LDTI8	58	SD24	30	I/O8
SD25	192	LDTI9	57	SD25	32	I/O9
SD26	191	LDTI10	56	SD26	34	I/O10
SD27	189	LDTI11	55	SD27	36	I/O11
SD28	190	LDTI12	54	SD28	39	I/O12
SD29	188	LDTI13	53	SD29	41	I/O13
SD30	187	LDTI14	51	SD30	43	I/O14
SD31	185	LDTI15	50	SD31	45	I/O15

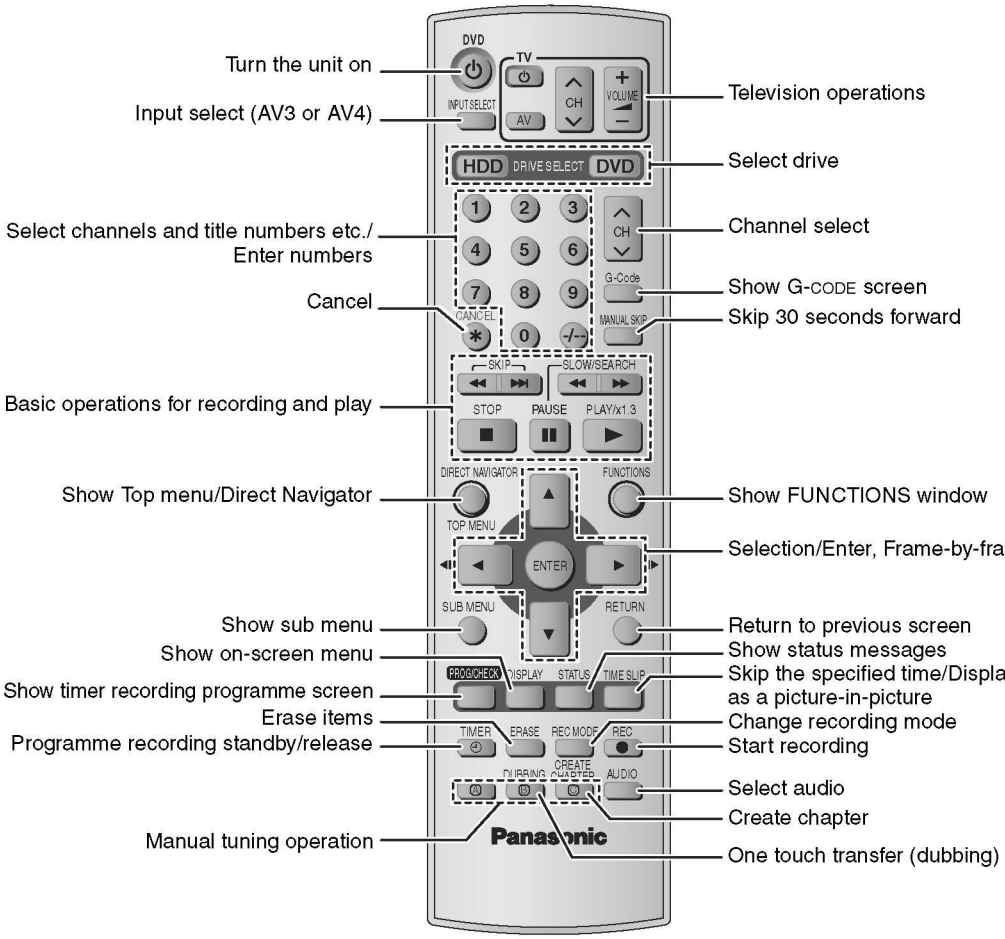
MSD16 - MSD31 DATA BUS LINE (TC19-1, TC21-1,TC22-1)

TC	19-1		21-1		22-1	
SIGNAL NAME	IC3404 / AVENC&RTSC		IC3501 / RTSC		IC6701 / GLUE	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSD16	203	HD0	118	HDAT0	12	LDEV0
MSD17	204	HD1	117	HDAT1	13	LDEV1
MSD18	206	HD2	115	HDAT2	11	LDEV2
MSD19	207	HD3	114	HDAT3	10	LDEV3
MSD20	209	HD4	113	HDAT4	7	LDEV4
MSD21	210	HD5	111	HDAT5	8	LDEV5
MSD22	212	HD6	110	HDAT6	9	LDEV6
MSD23	213	HD7	109	HDAT7	14	LDEV7
MSD24	215	HD8	107	HDAT8	2	LDEV8
MSD25	216	HD9	106	HDAT9	4	LDEV9
MSD26	217	HD10	104	HDAT10	3	LDEV10
MSD27	218	HD11	102	HDAT11	208	LDEV11
MSD28	220	HD12	101	HDAT12	207	LDEV12
MSD29	221	HD13	100	HDAT13	6	LDEV13
MSD30	223	HD14	98	HDAT14	205	LDEV14
MSD31	224	HD15	97	HDAT15	203	LDEV15

MSA1 - MSA4 ADDRESS BUS LINE (TC16, TC19-2, TC21-2, TC22-2)

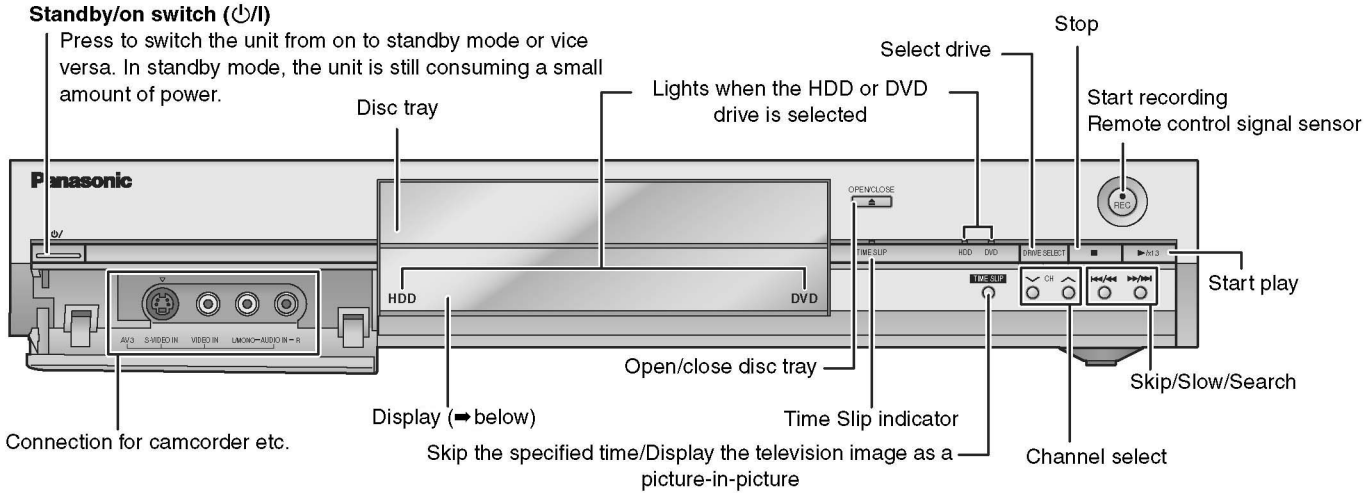
TC	16		19-2		21-2		22-2	
SIGNAL NAME	IC6004/BUFFER		IC3404/AVENC		IC3501/RTSC		IC6701/GLUE	
	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name	Pin No	Port Name
MSA1	18	1Y1	181	HA0	68	HADR1	167	ADRL1
MSA2	16	1Y2	182	HA1	69	HADR2	164	ADRL2
MSA3	14	1Y3	183	HA2	70	HADR3	165	ADRL3
MSA4	12	1Y4	184	HA3	71	HADR4	166	ADRL4

Remote control

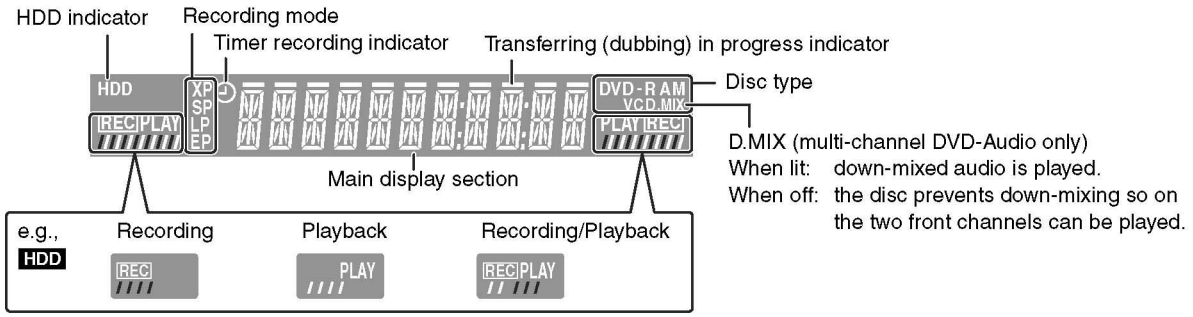


Main unit

Standby/on switch (⏻/I)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.



The unit's display



MAIN P.C.B.

MAIN P.C.B.

:REC SIGNAL :PB SIGNAL

AV4
JK3001
REAR JACK
18 LINE OUT (L)
16 MIX L OUT2
19 MIX R OUT2
21 LINE OUT (R)

SCART P.C.B.

FROM TIMER SECTION
XTMUTE IC7501- 20
XSCART MUTE Ⓛ IC7501- 57
QR4002-QR4005 Q4004 MUTE CIRCUIT
QR4012 SCART MUTE OUT
D4005 Q4006 MUTE
Q4007 MUTE
D4006 Q4008 MUTE
Q4009 MUTE
XDMUTE

MIX L OUT1 — PP7403 PS3903 14
MIX R OUT1 — PP7403 PS3903 12
SCART AUDIO MUTE Ⓗ — PP7403 PS3903 2

Q3908, QR3909 MUTE CIRCUIT
D3903 Q3910 MUTE
Q3909 MUTE

FROM DIGITAL P.C.B.
P9001 P7402 70 MIX R OUT DM
P9001 P7402 58 MIX L OUT DM
P9001 P7402 62
IC4009 2 1 6 7 IC4009

IC4001
(AUDIO SIGNAL PROCESSOR)

AV4
JK3001
REAR JACK
AUDIO LINE IN(R) 21 20 AV4 IN R
LINE IN(L) 17 18 AV4 IN L

(Lch) (Rch)
BUFFER
INPUT SELECTOR SW
BUFFER
L CH OUT 29
R CH OUT 28
A ADC L P7402 P9001 50
A ADC R P7402 P9001 48
TO DIGITAL P.C.B.

AV4 IN R 12
AV4 IN L 11
AV1/2 IN R 10 — AV1/2 IN(R) — PP7403 PS3903 4
AV1/2 IN L 9 — AV1/2 IN(L) — PP7403 PS3903 6

IC3901
(A/V BUFFER AND SWITCH)

9 EXT.MUTE CTL.

AV3
JK7501
FRONT JACK
AUDIO FRONT LINE (L) 4 5 AV3 IN(L) — AV3 IN L 32
FRONT LINE (R) 2 3 1 AV3 IN(R) — AV3 IN R 31

IIC BUS LOGIC
20 IIC CLK IC7501- 28
21 IIC DATA IC7501- 29
FROM TIMER SECTION

R CH OUT 40
L CH OUT 39
BUF LPF AMP
Lch
SW3 SW2 SW1
(R CH)
(L CH)

MIX L OUT1 11 2
MIX R OUT1 10 1

AV2
JK3904
(DECODER/EXT)
AUDIO OUT CH2(R) 31 1
AUDIO IN CH2(R) 34 2
AUDIO OUT CH1(L) 30 3
AUDIO IN CH1(L) 33 6

AV1
JK3905
(TV)
AUDIO OUT CH2(R) 43 1
AUDIO IN CH2(R) 37 2
AUDIO OUT CH1(L) 42 3
AUDIO IN CH1(L) 36 6

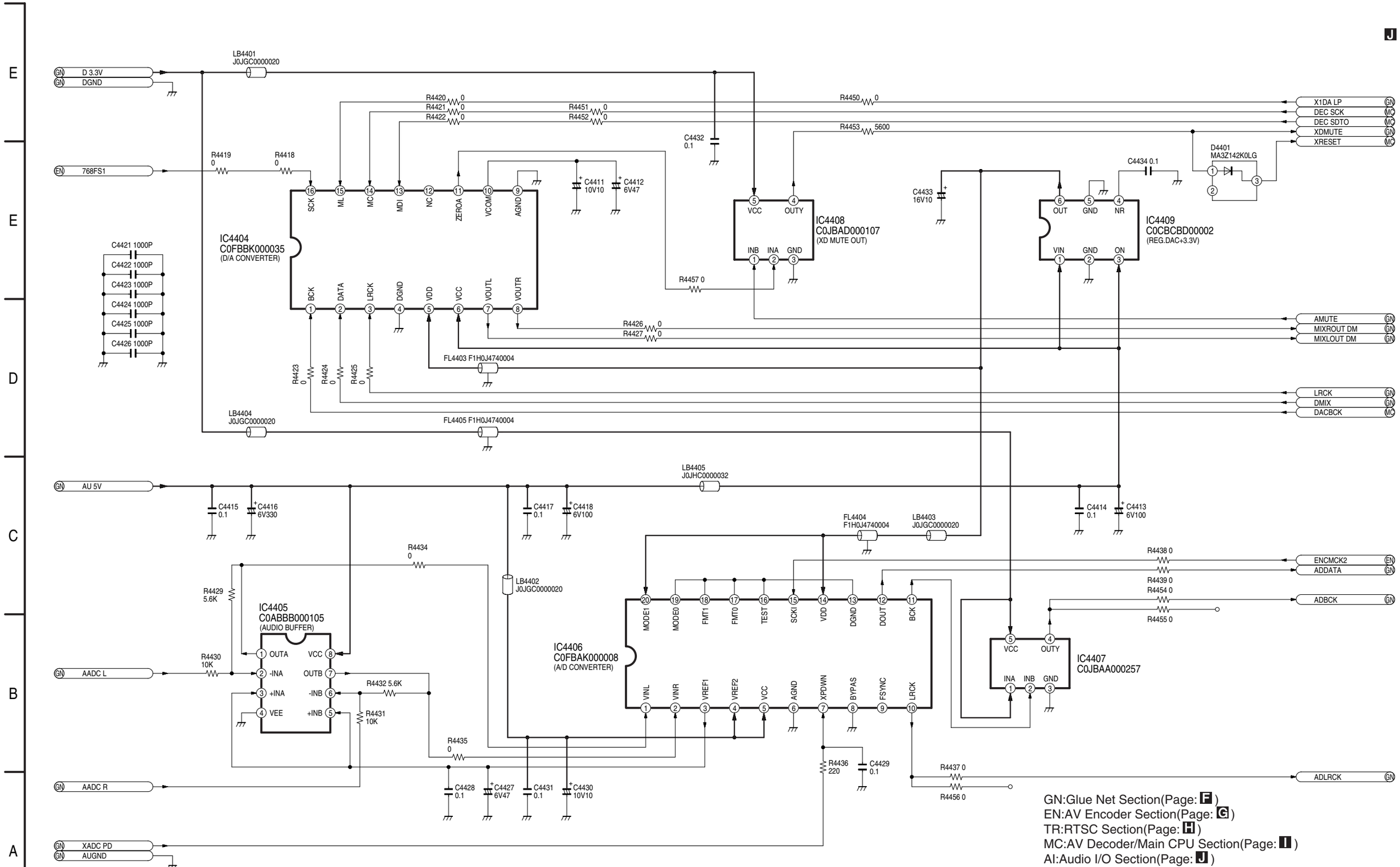
DU7402
TUNER
AUDIO OUT 21
SIF OUT 22

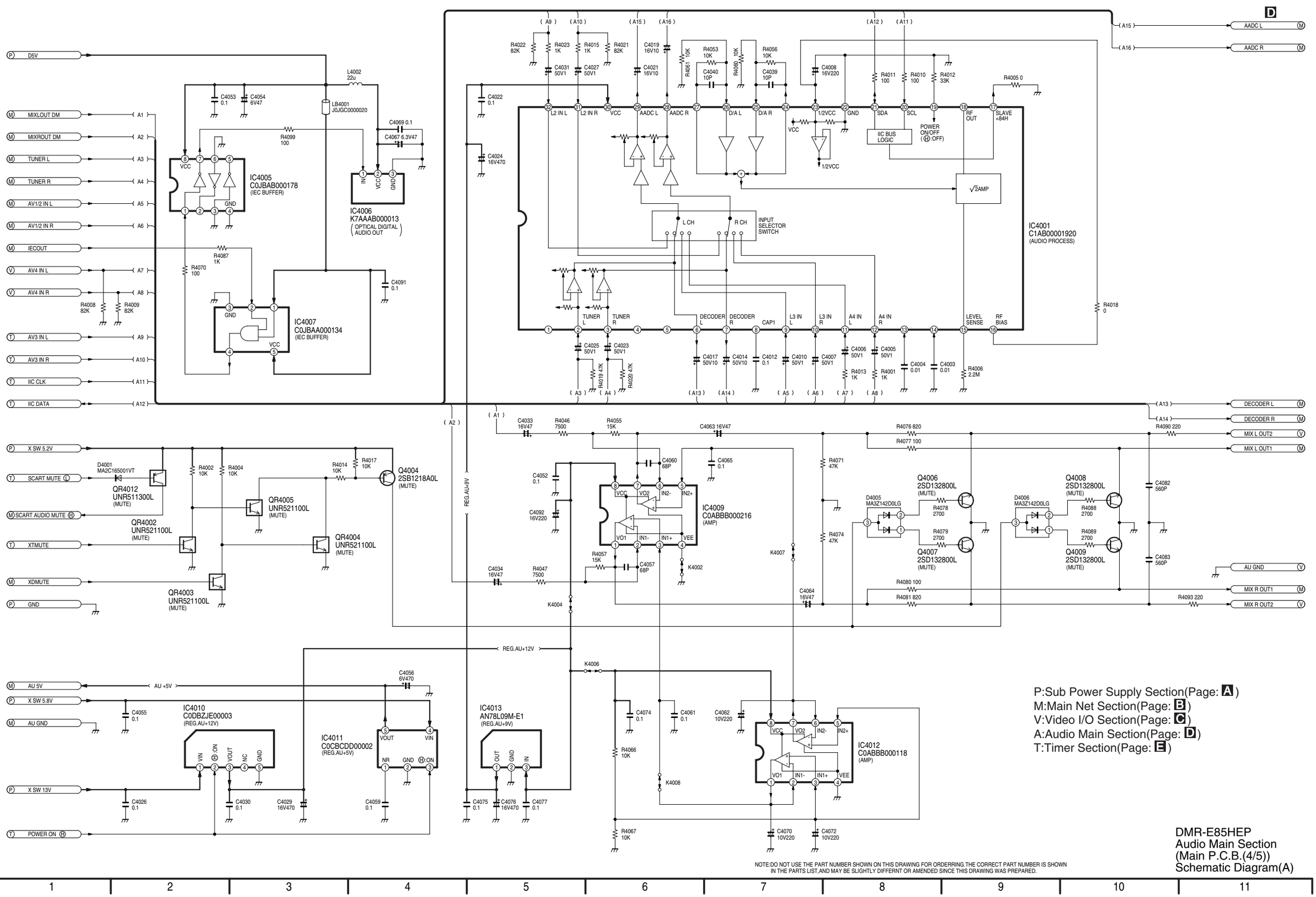
IC7301
(NICAM/A2)
PK7701 PK7301 3 — MONO IN 38 — R OUT 2 — PK7302 PK7702 4 — TUNER R — TUNER R 3 — AMP — DECODER R 7 — DECODER R — PP7403 PS3903 8 — DECODER R 15 — R CH IN
PK7701 PK7301 1 — SIF 25 — L OUT 1 — PK7302 PK7702 6 — TUNER L — TUNER L 2 — AMP — DECODER L 6 — DECODER L — PP7403 PS3903 10 — DECODER L 16 — L CH IN

NICAM DECODER P.C.B.

FROM DIGITAL P.C.B.
P9001 P7402 72 IEC OUT
IC4007 2 1 4 D+5V
IC4005 1 7
IC4006 OPTICAL (DIGITAL AUDIO OUT) 1

DMR-E85HEP
Analog Audio Block Diagram


J
LB4401
J0JGC0000020
D 3.3V
DGND
768FS1
R4419 0
R4418 0
R4420 0
R4421 0
R4422 0
R4451 0
R4452 0
R4450 0
R4453 5600
C4432 0.1
X1DA LP
DEC SCK
DEC SDTO
XDMUTE
XRESET
D4401
MA3Z142K0LG
C4434 0.1
C4433 16V10
IC4404
C0FBBK000035
(D/A CONVERTER)
SCK ML MC MDI NC ZEROA VCOM AGND
C4411 10V10
C4412 6V47
BCK DATA LRCK DGND VDD VCC VOUTL VOUTR
C4421 1000P
C4422 1000P
C4423 1000P
C4424 1000P
C4425 1000P
C4426 1000P
IC4408
C0JBAD000107
(XD MUTE OUT)
VCC OUTY INB INA GND
IC4409
C0CBCBD00002
(REG.DAC+3.3V)
OUT GND NR VIN GND ON
R4457 0
R4426 0
R4427 0
AMUTE
MIXROUT DM
MIXLOUT DM
FL4403 F1H0J4740004
R4423 0
R4424 0
R4425 0
LRCK
DMIX
DACBCK
LB4404
J0JGC0000020
FL4405 F1H0J4740004
LB4405
J0JHC0000032
AU 5V
C4415 0.1
C4416 6V330
C4417 0.1
C4418 6V100
C4414 0.1
C4413 6V100
FL4404
F1H0J4740004
LB4403
J0JGC0000020
R4434 0
R4438 0
ENCMCK2
ADDATA
R4439 0
R4454 0
ADBCK
R4455 0
R4429 5.6K
IC4405
C0ABBB000105
(AUDIO BUFFER)
OUTA -INA +INA VEE VCC OUTB -INB +INB
LB4402
J0JGC0000020
IC4406
C0FBAK000008
(A/D CONVERTER)
MODE1 MODE0 FMT1 FMT0 TEST SCKI VDD DGND DOUT BCK
VINL VINR VREF1 VREF2 VCC AGND XPDWN BYPAS FSYNC LRCK
IC4407
C0JBAA000257
VCC OUTY INA INB GND
R4430 10K
AADC L
R4432 5.6K
R4431 10K
R4435 0
R4436 220
C4429 0.1
R4437 0
R4456 0
ADLRCK
AADC R
C4428 0.1
C4427 6V47
C4431 0.1
C4430 10V10
XADC PD
AUGND
GN:Glue Net Section(Page: F)
EN:AV Encoder Section(Page: G)
TR:RTSC Section(Page: H)
MC:AV Decoder/Main CPU Section(Page: I)
AI:Audio I/O Section(Page: J)
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST, AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E85HEP
Audio I/O Section
(Digital P.C.B.(5/5))
Schematic Diagram(AI)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C4053 0.1
C4054 6V47
LB4001 J0JGC0000020
C4069 0.1
C4067 6.3V47
R4099 100
MIXLOUT DM
MIXROUT DM
TUNER L
TUNER R
AV1/2 IN L
AV1/2 IN R
IECOUT
AV4 IN L
AV4 IN R
AV3 IN L
AV3 IN R
IIC CLK
IIC DATA
IC4005 C0JBAB000178 (IEC BUFFER)
VCC
GND
IC4006 K7AAAB000013 (OPTICAL DIGITAL AUDIO OUT)
IN
VCC
GND
R4070 100
R4087 1K
C4091 0.1
R4008 82K
R4009 82K
IC4007 C0JBAA000134 (IEC BUFFER)
R4022 82K
R4023 1K
R4015 1K
R4021 82K
C4031 50V1
C4027 50V1
C4019 16V10
C4021 16V10
R4053 10K
R4061 10K
R4060 10K
R4056 10K
C4040 10P
C4039 10P
C4008 16V220
R4011 100
R4010 100
R4012 33K
R4005 0
C4022 0.1
C4024 16V470
L2 IN L
L2 IN R
VCC
AADC L
AADC R
D/A L
D/A R
1/2VCC
GND
SDA
SCL
RF OUT
SLAVE =84H
IIC BUS LOGIC
POWER ON/OFF (H:OFF)
√2AMP
L CH
R CH
INPUT SELECTOR SWITCH
IC4001 C1AB00001920 (AUDIO PROCESS)
TUNER L
TUNER R
DECODER L
DECODER R
CAP1
L3 IN L
L3 IN R
A4 IN L
A4 IN R
LEVEL SENSE
RF BIAS
R4018 0
C4025 50V1
C4023 50V1
R4019 47K
R4020 47K
C4017 50V10
C4014 50V10
C4012 0.1
C4010 50V1
C4007 50V1
C4006 50V1
C4005 50V1
R4013 1K
R4001 1K
C4004 0.01
C4003 0.01
R4006 2.2M
AADC L
AADC R
DECODER L
DECODER R
MIX L OUT2
MIX L OUT1
AU GND
MIX R OUT1
MIX R OUT2
C4033 16V47
R4046 7500
R4055 15K
C4063 16V47
R4076 820
R4077 100
R4090 220
C4060 68P
C4065 0.1
C4052 0.1
C4092 16V220
IC4009 C0ABBB000216 (AMP)
VCC
VO2
IN2-
IN2+
VO1
IN1-
IN1+
VEE
R4057 15K
C4057 68P
K4002
K4004
K4007
C4034 16V47
R4047 7500
R4071 47K
R4074 47K
C4064 16V47
Q4004 2SB1218A0L (MUTE)
Q4006 2SD132800L (MUTE)
Q4007 2SD132800L (MUTE)
Q4008 2SD132800L (MUTE)
Q4009 2SD132800L (MUTE)
D4005 MA3Z142D0LG
D4006 MA3Z142D0LG
R4078 2700
R4079 2700
R4088 2700
R4089 2700
R4080 100
R4081 820
R4093 220
C4082 560P
C4083 560P
D4001 MA2C165001VT
QR4012 UNR511300L (MUTE)
QR4002 UNR521100L (MUTE)
QR4005 UNR521100L (MUTE)
QR4004 UNR521100L (MUTE)
QR4003 UNR521100L (MUTE)
R4002 10K
R4004 10K
R4014 10K
R4017 10K
X SW 5.2V
SCART MUTE
SCART AUDIO MUTE
XTMUTE
XDMUTE
GND
REG.AU+9V
REG.AU+12V
AU 5V
AU +5V
X SW 5.8V
AU GND
X SW 13V
POWER ON
IC4010 C0DBZJE00003 (REG.AU+12V)
VIN
H:ON
VOUT
NC
GND
IC4011 C0CBCDD00002 (REG.AU+5V)
NR
VOUT
VIN
IC4013 AN78L09M-E1 (REG.AU+9V)
OUT
GND
IN
C4056 6V470
C4055 0.1
C4026 0.1
C4030 0.1
C4029 16V470
C4059 0.1
C4075 0.1
C4076 16V470
C4077 0.1
K4006
K4008
C4074 0.1
C4061 0.1
C4062 10V220
R4066 10K
R4067 10K
C4070 10V220
C4072 10V220
IC4012 C0ABBB000118 (AMP)
P:Sub Power Supply Section(Page: D)
M:Main Net Section(Page: B)
V:Video I/O Section(Page: C)
A:Audio Main Section(Page: D)
T:Timer Section(Page: E)
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.
DMR-E85HEP
Audio Main Section
(Main P.C.B.(4/5))
Schematic Diagram(A)

MAIN P.C.B.

MAIN P.C.B.

:REC SIGNAL
:PB SIGNAL

IC3003
(VIDEO BUFFER)

IC3002
(SELECTOR SWITCH)

IC3001
(VIDEO PROCESSOR)

SCART P.C.B.

AV4
JK3001
REAR JACK

AV3
JK7501
FRONT JACK

DU7402
TUNER

JK3901
COMPONENT VIDEO OUT
(NTSC:480P/480I
PAL:576P/576I)

AV1
JK3905
(TV)

AV2
JK3904
(DECODER/EXT)

IC3901
(BUFFER AND SWITCH)

FROM TIMER SECTION

FROM DIGITAL P.C.B.

TO DIGITAL P.C.B.

DMR-E85HEP
Analog Video Block Diagram